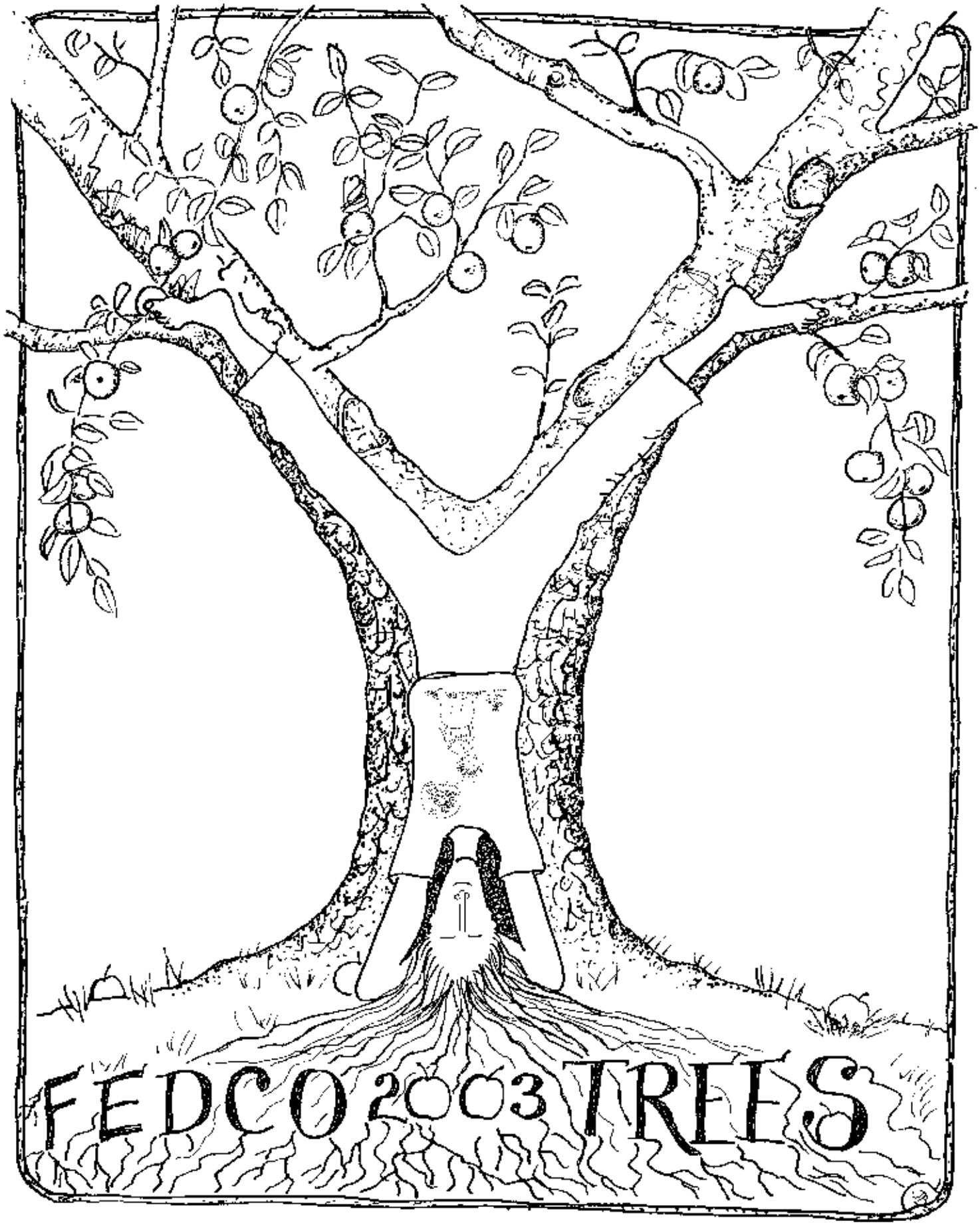
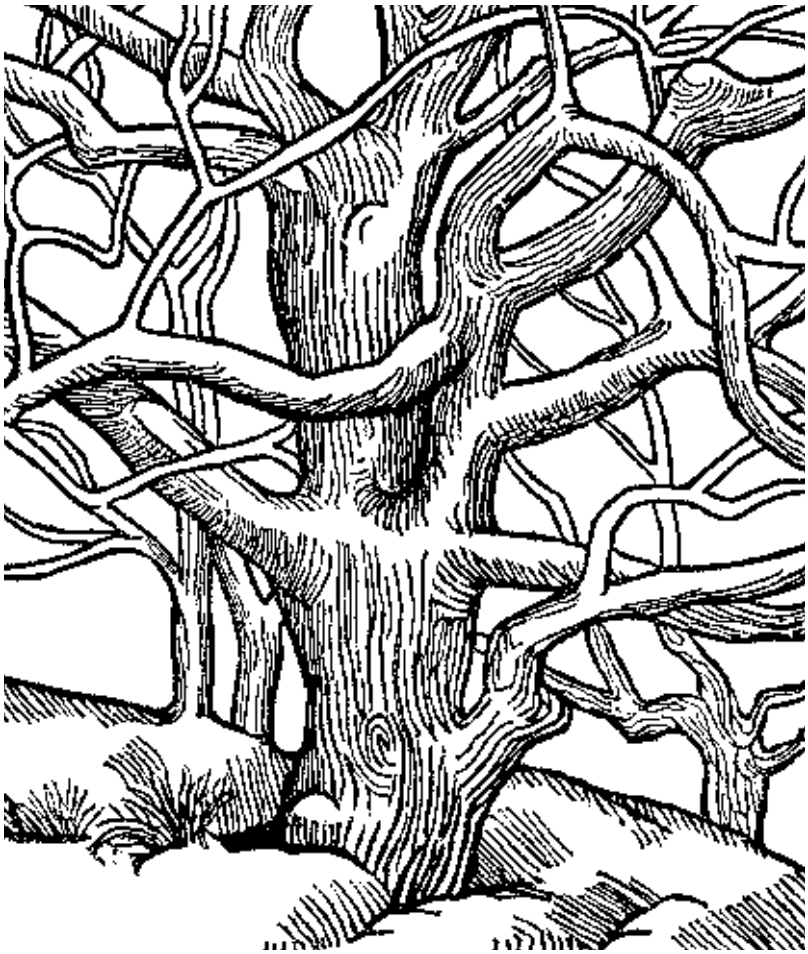

FEDCO 2003 TREES



FEDCO TREES 2003

Welcome to Fedco Trees' 19th annual spring order which includes tender bulbs and perennial plants in their 16th year. Order forms are in the center of this catalog.

Please come to our annual Tree Sale in Clinton! Along with many of our catalog listings, we bring in many locally grown plants, some rare, some potted, some in quantities too small to list in the catalog. Seeds, organically grown seedlings, seed potatoes, and orchard, farm and garden supplies are also available. **New this year** the sale has expanded to May 2 & 3, 2003 for people picking up orders and May 9-11 for the general public.

We encourage people to plant more trees. Diversify your gardens, fields and orchards. We vary our listings every year to increase the choices available and to bring you the hardiest and healthiest plants possible for cold climates. Our no-frills operation and volume discounts help keep plants affordable. Consider ordering in a group with co-workers, friends or neighbors to minimize your costs.

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Last June I received a surprising email from John Althouse, horticulturist at Orchard House, *Little Women* author Louisa May Alcott's historic home in Concord, Massachusetts. He wanted to know if we could provide an heirloom apple tree to be planted in front of Orchard House two days later. It took some scurrying about, but on June 20, 2002 with much fanfare and a huge crowd, Laura Bush, our First Lady, was on the front page of the *Globe* and the *Herald*, planting a Fedco tree.

Earlier in the spring I was fortunate enough to organize and then attend another tree planting near Boston. This one was not covered by the big papers but in some ways it was even more profound. About twenty teenagers from Roxbury and Dorchester joined a couple dozen suburban families on a late-April Saturday afternoon to replant a historic orchard of 50 Baldwin trees. Delton Curtis, a member of our Fedco grower's co-op, grew the trees using cuttings I had collected from the last remaining trees in the orchard. The planting day was wild and magical: a hillside covered with people of all ages planting trees. We planted all 50 trees in less than an hour. I was dumbstruck.

Long ago someone planted the trees I now climb and harvest. Long after we're gone, someone else will get to climb and pick the fruit from the trees we plant.

We believe in selling small trees with well-developed root systems. A good root system is far more important than a big branched treetop. Small trees are not only less expensive than large trees, but also re-establish themselves with minimal transplant shock and grow quickly and vigorously.

Our stock comes from a few large northern nurseries and about twenty small Maine nurseries in our growers co-op. Look for the ❄ signifying plants grown by these local growers. All of these local plants are hand-planted and hand-dug. All are grown with some combination of compost, cover cropping and crop rotation. The largest of these nurseries is three acres; the average being about three-quarters of an acre. As we work to involve more small Maine nurseries, we are increasing our selection of locally grown plants, especially heirloom and hard-to-find selections. If you ask, we'll tell you the origin of a particular item.

Check out our Web site: **www.fedcoseeds.com**. There is a link to Fedco Trees. We plan to post a wide range of useful and interesting information. If you have ideas for what we should include, please let us know.

We do special orders. If you wish to buy large quantities of any item, larger or smaller plants than we are listing, rooted cuttings, or unusual items we're not listing, please write with particulars.

Please share your experiences growing plants with us. Many of our selections originated from your suggestions. If you know of something growing near you we should be offering, or if you are interested in growing for us, please write to us. We are part of Fedco Seeds, a consumer/worker cooperative. We welcome your comments, suggestions, and ideas. Thank you for your support.

John Bunker & Susan Kiralis

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Phone 207-873-7333. We answer regularly starting in mid-January.

We guarantee the quality of our trees and plants, and warrant that all items we offer are fully satisfactory.
If you are dissatisfied for any reason, we will replace the item or refund the purchase price.
Please inspect your order upon receipt and use the correction sheet to notify us immediately of any problems. Because good results depend upon weather, soil and cultural practices over which we have no control, we limit our liability in all instances to the purchase price. The liability of Fedco Seeds, Inc., for breach of warranty, or any loss or damages arising out of the purchase or use of our products, including loss or damages resulting from any negligence whatsoever on our part, or strict liability in tort, shall be limited to the purchase price. By acceptance of the merchandise, the buyer acknowledges that the limitations and disclaimers herein described are conditions of sale, and that they constitute the entire agreement between the parties regarding any warranty or liability. Claims for any defects in Fedco's products should be presented to Fedco as soon as possible after discovery. Failure to assert claims within 30 days after discovery renders this warranty null and void.

Ordering Information—

The order forms - Order items from this catalog on a Trees 2003 order form, in the center of the catalog; you may submit as many pages as you need, either photocopies, forms downloaded from our website or printouts mimicking our format. To encourage you to participate in a group order and to order early, we give discounts.

Payment with check, money order or credit card must accompany all orders. We request that all orders under $25 pay by check or MO. Make your check out to Fedco. We accept Visa and MasterCard and will bill your credit card when we receive your order. We will bill or refund you for any adjustments as each order is completed.

Mail your order to **Fedco Trees, PO Box 520, Waterville, ME 04903-0520.** Keep a copy of your order for your records. To confirm receipt of your order, enclose a stamped self-addressed postcard.

Or **fax** your order to (207) 872-8317. Fax orders pay a $2 handling fee. **We do not take phone orders.**

Group orders: mail us at one time all the order forms from your group members with one payment and we will ship all the orders, packaged individually, to one address. The group total earns the discount. Use the front of an order form for a group address and payment cover sheet. We recommend making a copy of each group member's order before you send the batch to us.

Maine sales tax - for **Maine residents only.** Please add 5% sales tax. State law does not exempt shrubs, trees, seedlings or plants, even those producing food.

We charge **$10 for handling if you adjust your order**. Additions, deletions and cancellations are costly for us to process. You are welcome to place as many separate orders as you wish.

We will offer surplus for sale at the Tree Sale. Sometimes we have stock left over after the Tree Sale, but never after May 15th, when we shut down completely and go home to plant.

Our Variety Descriptions–

All trees and plants are bare-rooted (except where noted), and even a large order can fit into a station wagon. All fruit and nut trees are well-rooted, 1/4-7/8" in diameter.

Fruit trees are grafted onto the hardiest standard-sized rootstocks available, except where noted. Standard trees are stronger rooted, hardier, and longer lived than dwarf or semi-dwarf trees. If you want a smaller tree, keep it pruned.

For fruit trees and berries, the **exact dates of peak ripeness** will vary from place to place.

The **zone hardiness rating** will aid you in determining whether a plant will be hardy for you. The average minimum temperature in your area determines your zone. See the chart below. Your own soil conditions, micro-climate and topography will be equally important in determining the best varieties for you.

Please note **pollination** requirements for fruits, nuts and berries. Some plants are self-pollinating, others require a second plant for pollination, and others require a plant of a second variety.

We strive to give you accurate information about all the plants we sell. If you notice inaccuracies, please let us know.

John writes the tree and shrub descriptions and Susan writes tender bulb and perennial descriptions.

USDA Hardiness Zone	Average Minimum Temperature
2	-50˚ to -40˚
3	-40˚ to -30˚
4	-30˚ to -20˚
5	-20˚ to -10˚
6	-10˚ to 0˚

Discounts & Deadlines—

Discount deadline is **Friday, December 13, 2002**. Sorry, no volume discounts on later orders. Discounts apply only to orders shipped to one address.

over $200	10% discount
over $400	15% discount

Special discounts may be available for very large orders; please call (207) 873-7333 for a quote.

We fill all orders on a first-come first-served basis.

Final order deadline is **March 7, 2003.**

Shipping and Pickup—

We ship most orders **via UPS beginning in April**, and continue throughout the month, timed according to planting zone.

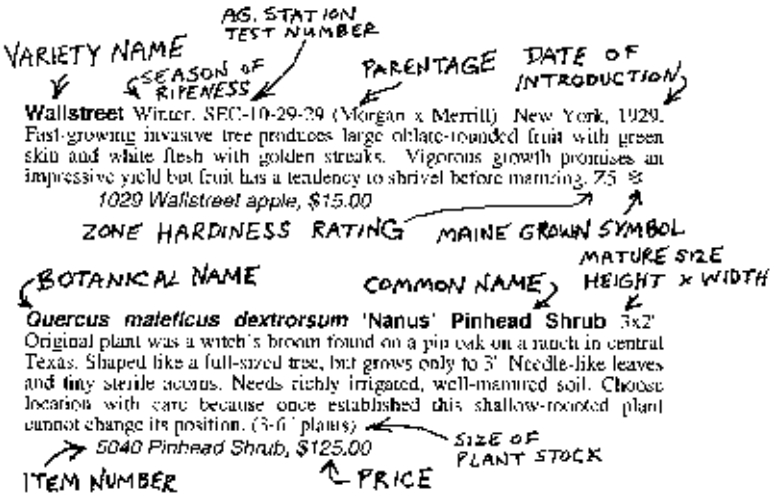
Shipping charges: 10% for shipping with the following minimums.

area	minimum charge
New England	$8.00
NY, NJ and PA	$9.00
all other states	$14.00

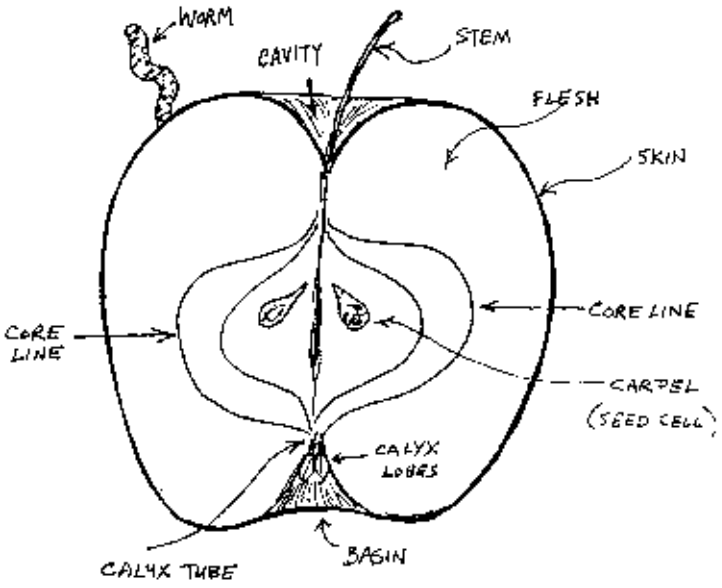
We ship to Alaska via Priority Mail; include 20% for shipping (minimum $14) and supply a postal address.

Pick your order up at our warehouse in Clinton, Maine, during our annual **Tree Sale** which has expanded to two weekends. Fri and Sat, May 2-3, are reserved for preorder customers. The public is welcome on Friday, Saturday and Sunday, May 9-11. We ask preorder customers to come on May 2 or 3, shop at the full Tree Sale and avoid the crowds. We will send you a pickup reminder and map in April. You may pay a 50% deposit, with the balance due at pickup. Depending on our receiving schedule and the weather, we may choose to ship the perennial plants section of pickup customers' orders without a shipping charge.

We include planting guides with cultural instructions in all orders.


AG. STATION TEST NUMBER
VARIETY NAME
SEASON OF RIPENESS
PARENTAGE
DATE OF INTRODUCTION
Wallstreet Winter. SEC-10-29-29 (Morgan x Merrill) New York, 1929. Fast-growing invasive tree produces large oblate-rounded fruit with green skin and white flesh with golden streaks. Vigorous growth promises an impressive yield but fruit has a tendency to shrivel before maturing. Z5 ※
1029 Wallstreet apple, $15.00
ZONE HARDINESS RATING
MAINE GROWN SYMBOL
MATURE SIZE HEIGHT x WIDTH
BOTANICAL NAME
COMMON NAME
Quercus maleficus dextrorsum 'Nanus' Pinhead Shrub 3x2'
Original plant was a witch's broom found on a pin oak on a ranch in central Texas. Shaped like a full-sized tree, but grows only to 3' Needle-like leaves and tiny sterile acorns. Needs richly irrigated, well-manured soil. Choose location with care because once established this shallow-rooted plant cannot change its position. (3-6' plants)
5040 Pinhead Shrub, $125.00
SIZE OF PLANT STOCK
ITEM NUMBER
PRICE

Statements about medicinal uses of plants have not been evaluated by the FDA, and should not be used for the diagnosis, treatment, cure or prevention of any ailment. Before using or ingesting any medicinal plant, consult a healthcare practitioner familiar with botanical medicine.



Apples

Malus spp. probably originated in Kazakhstan where vast apple forests still thrive. The fruit likely traveled west via the great Silk Route and eventually to America on European ships. At one time cider was America's most popular drink. There were hundreds of thousands of seedling apple orchards in the eastern U.S. creating one of the greatest—though largely unintentional—breeding experiments ever conducted. From those orchards come many of our most famous varieties, a fraction of which we offer each year.

Some definitions: **Summer apples** ripen in summer, are crisp only for a short period, do not store well, and are best used for cooking. **Fall apples** store longer and are useful for a wide variety of purposes. **Winter apples** ripen mid to late fall, store well, and reach their best flavor after weeks, or even months, of storage. **Dessert apples** are delicious eaten raw. **Subacid** means tart! **Russet** or **russeting** is a skin texture (fairly common on apple varieties and characteristic of a few pears and potatoes) which looks and feels somewhat like suede. These brownish roughened areas do not affect the taste of the fruit. Many "russets" are delicious and quite beautiful apples. **Bloom** is a naturally occurring dust-like film on the skin of some varieties of apples, plums and grapes.

Each variety has a climate range where it will thrive and produce its best fruit. At the end of each apple description you'll find a range of zones listed. For example, Z3-4 signifies that this apple will reach perfection in Zones 3 and 4 and that we don't recommend it farther south even though it would be plenty hardy. Z4-6 means that this apple will reach perfection in Zones 4, 5 or 6. We suggest that you use this guide to select varieties most appropriate to your area.

Again we are offering a few varieties on semi-dwarf rootstock. While we prefer standard (full-sized) rootstocks, some varieties are available only on M111 semi-dwarf rootstock, which is hardy in Zone 4 and produces a tree about 75% of standard size. M111 is quite rugged and tolerates dry conditons better than most rootstocks.

Although standard-sized apple trees may be planted as close as 10-15' apart, they were typically planted 30' apart in 19th century orchards. We generally plant single trees 20-25' apart with good results.

Apple trees are adaptable to a variety of soils and climates, though they prefer well-drained fertile soil. See page 9 for information on soil preparation. Varieties bearing annually are noted; others normally bear every other year. **All apple trees require a second variety for pollination**, but any apple within a quarter mile will probably do. ($3^1/_2$-6' trees)

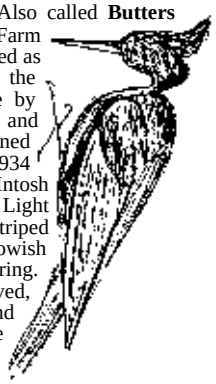
Alexander Fall. Unknown parentage. Ukraine, c 1700. Originally known as **Aporta**. Redubbed Alexander in honor of the Czar Alexander I (1777-1825). First arrived in the U.S. in 1835, quickly spreading north. Very large—often huge—round-conic pale yellow fruit, faintly red-striped in the shade and brightly blushed orange-red in the sun. Distinctly more conic than its famous oblate child, Wolf River. Firm coarse tender slightly tart juicy flesh, best know for its cooking qualities, although also quite good tart fresh eating. Long famous in Aroostook County and other northern areas where it can be picked over a several week period, reaching its prime in November and December. Vigorous upright spreading tree. Bears young. Good cropper. Comes fairly true to type from seed, so there may be many strains out there. Our scionwood came from Mercer, ME. We're currently looking for old Alexander trees in Aroostook County. Midseason blooming. Resistant to scab. Z3-4. ❄

0009 Alexander, $15.00

Ashmead's Kernel Winter. Unknown parentage. Gloucester, England, about 1700. Possibly a seedling of Nonpareil. An after-dinner apple of unparalleled quality. Not for those who like mild sweet apples. Each bite is a highly flavored intense aromatic sting of sharp and sweet, with hints of other indescribable but absolutely wonderful tastes and aftertastes. This apple alone could be dessert at the fanciest gathering of your most discerning friends. Forget the pie crust, just serve the straight fruit with cheddar, if anything. You might find yourself nibbling right down to the seeds as I do. Medium-small oblate and lopsided greenish russet fruits. Ripens in October. Store until New Year's to reach perfection. Keeps until they're all gone. Moderately vigorous tree may bear irregularly, but it's worth the wait. Blooms late season. Z4-8. ❄

0020 Ashmead's Kernel, $16.00

Baldwin Winter. Wilmington, MA, about 1740. Also called **Butters Apple** or **Woodpecker**. Discovered on the Butters Farm by a surveyor planning the Middlesex Canal and noted as a favorite site for local woodpeckers. Scions from the original tree were grafted and growing in Maine by 1810, and by 1850 Baldwin was the standard home and commercial variety wherever it was grown. It remained dominant in Maine until the terrible winter of 1934 when tens of thousands of trees perished and McIntosh became king. Large round-conic thick-skinned fruit. Light yellow skin almost entirely blushed, mottled and striped with red and deep carmine. Hard crisp juicy yellowish flesh makes excellent eating and keeps till spring. Vigorous, adaptable, hugely productive, long-lived, healthy tree. Hardiest in well-drained upland and north slopes. Massachusetts' most famous apple where it grows to perfection. Also extremely nice here in central Maine. Blooms early. Z4-6. ❄



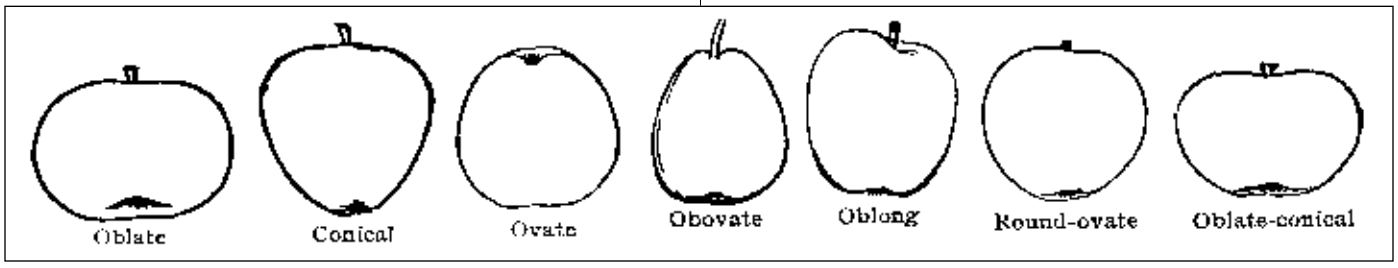
0035 Baldwin Apple, $15.00

Black Oxford Winter. Unknown parentage. Paris, Oxford County, ME, about 1790. This outstanding apple, a favorite long ago around much of Maine, has been making a huge comeback in the last 20 years. Our best seller. Medium-sized round fruit, deep purple with a blackish bloom. I doubt if there was ever a more beautiful apple. A 200-year-old Black Oxford tree still grows in Hallowell, and still bears large crops. Excellent cooking, superb late cider. Best eating late December to March. Good cooking until early summer. Some insect and disease resistance. Becoming less rare every year! Blooms late. Z3-5. ❄

0050 Black Oxford, $15.00

Blue Pearmain Fall-Winter. Unknown parentage. New England origin, 1700s. Grown throughout much of Maine for well over 200 years, and still common in old orchards around the state. Medium to very large fruit; pale green skin almost entirely overlaid with streaks and splashes of russet and purplish-red and a distinct blue bloom. Aromatic yellowish flesh is crisp, firm, mild and juicy. The only "modern" grafted variety praised in Henry David Thoreau's delightful 1862 essay "Wild Apples." Incredibly beautiful, excellent for dessert and cider. Keeps until mid-winter. Hardy large spreading tree. Said to be the parent of the Maine variety Rolfe. Blooms midseason. Z4-6. ❄

0060 Blue Pearmain, $15.00



❄ = grown by a member of the Fedco growers coop

Centennial Late Summer. MN 1472 (Dolgo x Wealthy). U Minn, l957. High-quality very small lightly ribbed barrel-shaped fruit. Bright red striped over orange-yellow with a thin purplish blush. Tender crisp juicy yellow flesh. Outstanding fresh eating or sauce. Robert Nitschke of the renowned South Meadow Fruit Gardens in Michigan has written, "I do not believe I know a sweeter, more delicious apple for eating out of hand.…It is seldom that I find a new apple which excites my enthusiasm but such is the case with Centennial." Productive naturally small very hardy compact tree named in honor of Minnesota's admission to the Union in 1858. Highly scab resistant. Z3-4. ❄

0090 Centennial, $15.00

Charette Fall. Also called **The Donut Apple**. Unknown parentage. The only known mature tree is on Charette Hill in Fort Kent, Aroostook County. The massive tree, thought to be about 200 years old, has 4 huge main trunks and is in vibrant health. The oblate apples are also huge ($3^{3}/_{4}$"+) and almost always seedless. The blossom end of each fruit is sunken in toward the stem, so much so that when sliced perpendicular to the core, the slices sometimes look like donuts. Hence the name. It is excellent for fresh eating and drying. Ripens about the end of September. Light yellow skin with splotches of dark yellow and covered with maroon streaks and a bright red blush. Our suspicion that it may have been brought to North America long ago by French missionaries was furthered two years ago when fruit explorer Gloria Seigars was up in Québec. There she met an old fellow in a restaurant in Camaraska who, upon seeing the Charette apples she had with her, declared that in his youth in Montréal his family had put up a barrel of these apples every year. A very unusual variety. Z3-4.❄

0097 Charette, $15.00

Cortland Fall-Winter. Ben Davis x McIntosh. NY Station, 1915. A cross between two commercial giants at the time, one (Ben Davis) on the way out and the other (McIntosh) on the way in. Although never as important as McIntosh (#**0478**), Cortland remains a very popular apple throughout northern New England even in this era of many new introductions. Medium to medium-large slightly ribbed dull red fruit with a purple blush. Excellent eating and cooking. Slow-oxidizing white flesh is very good in pies and salads; fine-grained, crisp, tender, juicy. Vigorous tall upright spreading tree with reddish bark. Annual producer of heavy crops. Bears young; remove fruit for the first year or two to avoid stunting growth. Blooms midseason. Z4-5. ❄

0110 Cortland, $15.00

Cox's Orange Pippin Fall. Possibly a seedling of Ribston Pippin. Near Slough, Bucks, England, around 1825. Deservedly one of the most famous of all apples. Not only one of the best eating apples ever but also the parent of many other great varieties. Medium-sized all-purpose aromatic fruit is red-orange to red with russet striping and wash. Perfectly balanced slightly subacid flavor and crisp juicy tender flesh improve with storage. Moderately vigorous moderately productive tree bears young and annually. Prefers cooler climates and higher pH (6.5-7.5+). Scab resistant. Blooms midseason. Z4-7. ❄

0115 Cox's Orange Pippin, $15.00

Crimson Beauty Summer. Fameuse x New Brunswicker. Upper Woodstock, New Brunswick, Canada, c.1850. Originally named **Early Scarlet**; also known as **Early Red Bird**. Extremely early medium-sized roundish-conic crisp juicy tart red fruit, well suited to the extreme north. Even earlier than Yellow Transparent. Rare but still remembered fondly in northern Maine and New Brunswick. Selected from over 2000 Fameuse and New Brunswicker crosses eccentric genius Canadian plant breeder Francis Peabody Sharp (1823-1903) made at his nursery in Upper Woodstock. Sharp was the most important figure in bringing fruit-growing to northern Maine, breeding and testing thousands of apples, plums and other fruits. Z3-4. ❄

0123 Crimson Beauty, $16.00

Duchess of Oldenburg Late Summer. Russia, 17th century. Also called **Duchess**. In 1835 the Massachusetts Horticultural Society imported the first four of many Russian apple varieties to the U.S. These were Alexander (#**0009**), Tetofsky, Red Astrichan and Duchess of Oldenburg. Soon planted extensively wherever growers needed extreme hardiness, Duchess is still quite popular in most of northern New England. Parent of many varieties including Hazen (#**0295**) and Red Baron (#**0675**). Thought to be the parent of the famous Canadian variety New Brunswicker and grandparent of Crimson Beauty (above) and Dudley Winter (below). Medium-sized round red-striped fruit is irregularly splashed and mottled with crimson. Yellow firm fine-grained crisp tender juicy subacid aromatic flesh. Highly esteemed for all sorts of cooking, it makes a great pie. At the first annual Belgrade Pie Taste-off in September 2000, the Duchess pie definitely had the most zip. Comments included "tarter," "immediate taste sensation" and "intense, more appley flavor." Prolific precocious small to medium-sized adaptable tree. Our stock is grafted from Warren Moody's ancient tree in Aroostook County, the highest quality Dutchess we've located in our northern exploration trips to date. Blooms early. Z3-4.❄

0134 Duchess of Oldenburg, $15.00

Dudley Winter Fall. Probably seedling of New Brunswicker. Castle Hill, ME, about 1877. Also called **Dudley** and **North Star**. Long assumed to be a Duchess seedling, we now believe it to be the progeny of the famous Canadian apple New Brunswicker. Orchardist John Wesley Dudley's daughter Grace planted seeds from a New Brunswicker tree in Dudley's orchard. The resulting seedling became the most widely planted new variety in the North at the turn of the *last* century and probably the most well-known Maine apple outside the state. Still grown commercially in Canada. Medium-sized roundish slightly flattened fruit is vibrant shiny buttery-yellow, overspread with radiating and striking red stripes and splashes. Firm but tender, juicy aromatic subacid flesh for fresh eating and cooking. In northern areas—where it reaches its prime—it also keeps into winter. Small vigorous spreading drooping tree begins bearing young, and crops annually. This year's nursery stock was grafted from a small abandoned orchard in Westmanland just north of Castle Hill. Blooms midseason. Natural semi-dwarf. Z3-4. ❄

0140 Dudley Winter, $15.00

Fall Harvey Fall. Essex County, MA, before 1850. Tower Hill Botanic Garden in Boyleston, MA, has a magnificent collection of heirloom varieties and is well worth the trip. Discovering Fall Harvey was one of the most pleasant surprises of my visit there a couple years ago. Large, somewhat oblate (flattened), slightly ribbed, pale straw to deep yellow fruit with an occasional deep sunny-side blush. Crisp juicy rich white flesh. Described in the 1839 Report of the Massachusetts Horticultural Society as having "flesh breaking, juice sweet and abundant, with just the right proportion of acid." Nineteenth century-style rich tart flavor, though not nearly so subacid as a certain sardonic newscaster. Best for fresh eating in October and November. Z4-6. And now for the rest of the apples... ❄

0189 Fall Harvey, $15.00

Garden Royal Late Summer-Fall. Unknown parentage. Sudbury, MA, about 1790. Eat one and you'll wonder why it isn't planted in every orchard. Offer it in your catalog and strangers will appear and buy you out. It's an apple with a cult following. With good reason. It may be the best-flavored apple I have ever tasted. Small to medium-sized round-conic fruit is deep red with prominent white dots. AJ Downing, in the 1860 edition of his *Fruits and Fruit Trees of America*, calls it "very tender, juicy, rich, vinous, aromatic, a beautiful and excellent fruit." Surprise favorite at the taste test at the September 1999 Common Ground Fair, it came in second only to world renowned Cox's Orange Pippin (#**0115**). Once extremely popular because of its exquisite sweet flavor and commonly found in farm orchards, it didn't fit the commercial orchard mold and fell out of favor. Medium-sized moderately vigorous rounded productive tree. Z4-6. ❄

0229 Garden Royal, $15.00

Golden Russet Winter. Uncertain origin. Thought to be from England, New York or New England. The champagne of cider apples, ripening late in fall, when the root cellar has finally cooled off and the best cider is ready to be made. Excellent eating; keeps all winter and well into spring. Round medium-sized hard fruit; uniform in size and shape, softens as winter progresses but maintains its superior sweet flavor. Solid deep yellow *golden* russeted skin. Medium to large vigorous diverging upcurving tree with silvery-green leaves on long willowy branches. Scab resistant. Blooms early to midseason. Zones 4-6. ❄

0240 Golden Russet, $15.00

Gravenstein Late summer. Thought to be of 17th century Italian or German origin. Brought to the U.S. in the early 19th century; by 1880 it was the most popular summer apple in Maine. Probably *the* most famous of all summer apples and usually considered the best of all pie apples. Still commonly grown in Nova Scotia, northern California, Oregon and Washington. Medium to large fruit, irregularly round, asymetrical, usually ribbed. Thin tender skin is striped with yellow, red and orange. Tender crisp aromatic richly flavored juicy firm tart flesh. Outstanding eating and cooking. Rated "very good to best" by Beach in *Apples of New York*. Large vigorous productive tree with a nearly perfect wide-angle branching habit that requires practically no training. Ripens over several weeks. Too tender for colder areas of New England. Blooms early. Triploid: not suitable for pollinating other varieties. Zones 4-7. ❄

0262 Gravenstein, $17.00

Haralson Winter. MN 90 (Malinda x open-pollinated). U Minn, 1923. One of the earliest introductions from the Minnesota Horticultural Research Center and still the most commonly grown apple in Minnesota. A nearly perfect all-purpose apple for those in northernmost areas. Pleasant sprightly sub-acid flavor for fresh eating, pies, baking, sauce, freezing and cider. Roundish-conic bright red striped to mostly solid red fruit, with moderately conspicuous dots and some russeting. White firm crisp juicy flesh. Highly productive and reliable. Harvest in October, keeps until March. Extremely hardy naturally small tree with a strong central leader and well-formed wide-angled branching habit. Because it sets fruit so heavily, thin some of the small apples to ensure larger fruit size and encourage annual cropping. Fruit quality and size also seems to respond noticeably to better soils. Exhibits resistance to apple maggot, codling moth, cedar apple rust, fire blight, and even scab. Blooms late. Zones 3-4. ❄

0285 Haralson, $15.00

Hazen Early Fall. Mandan 41-27 (Duchess x Starking Delicious). North Dakota St U, 1980. Recommended for those who insist upon a dwarf tree but live in the coldest areas where dwarf rootstocks can't hack it. Hazen is a natural semi-dwarf, remaining less than 10' tall, even after 15 years. It also begins fruiting quite young, often by the third year, and then annually thereafter. Large 3" blocky truncate fruit resembles Red Delicious in shape only. Dark purple-burgundy skin with occasional streaks of electric red and a noticeable bloom. Greenish-yellow medium-coarse flesh with mild sweet subacid flavor. Pleasant for eating and good for cooking. Fruit holds well on the tree and rarely drops, even when ripe. Flowers early. Z3-4. ❄

0295 Hazen, $15.00

Honeycrisp Winter. MN 1711 (Honeygold x Macoun). U Minn, 1991. First of the many excellent University of Minnesota introductions to receive large-scale commercial attention. (I hope that won't spell death for this deserving apple.) One Wisconsin orchardist was quoted in *American Fruit Grower* saying, "Finally I've enjoyed selling apples again." Large fruit, described as "explosively crisp," mottled and striped red over yellow. Cream-colored flesh is sweet and juicy; hard snapping-crisp texture, but not dense. Mild aroma and subacid flavor improve steadily in storage. Annual bearing with harvest running throughout October. Outstanding storage—6 months or more. Spreading tree with fairly low vigor. Above-average scab resistance. Blooms midseason. Z3-4.

0327 Honeycrisp, $15.00

Honeygold Winter. MN 1595 (Golden Delicious x Haralson). U Minn, 1970. Golden Delicious aficionados of northern Maine: This is the apple to fulfill your hopes, dreams and prayers. Large round-to-conic deep yellow blushed bronze fruit has crisp and juicy yellow flesh with high-flavored "Golden Delicious" quality. All purpose. Myths occasionally circulate about its incredible single-variety cider; they may well be true. Medium-sized moderately vigorous moderately open tree. Harvest in October. Keeps all winter. The late apple champion Eddie Dupont of Mattawamkeag introduced us to Honeygold and generously provided us with grafting wood from his favorite tree. Moderate scab resistance. Blooms midseason. Z3-4. ❄

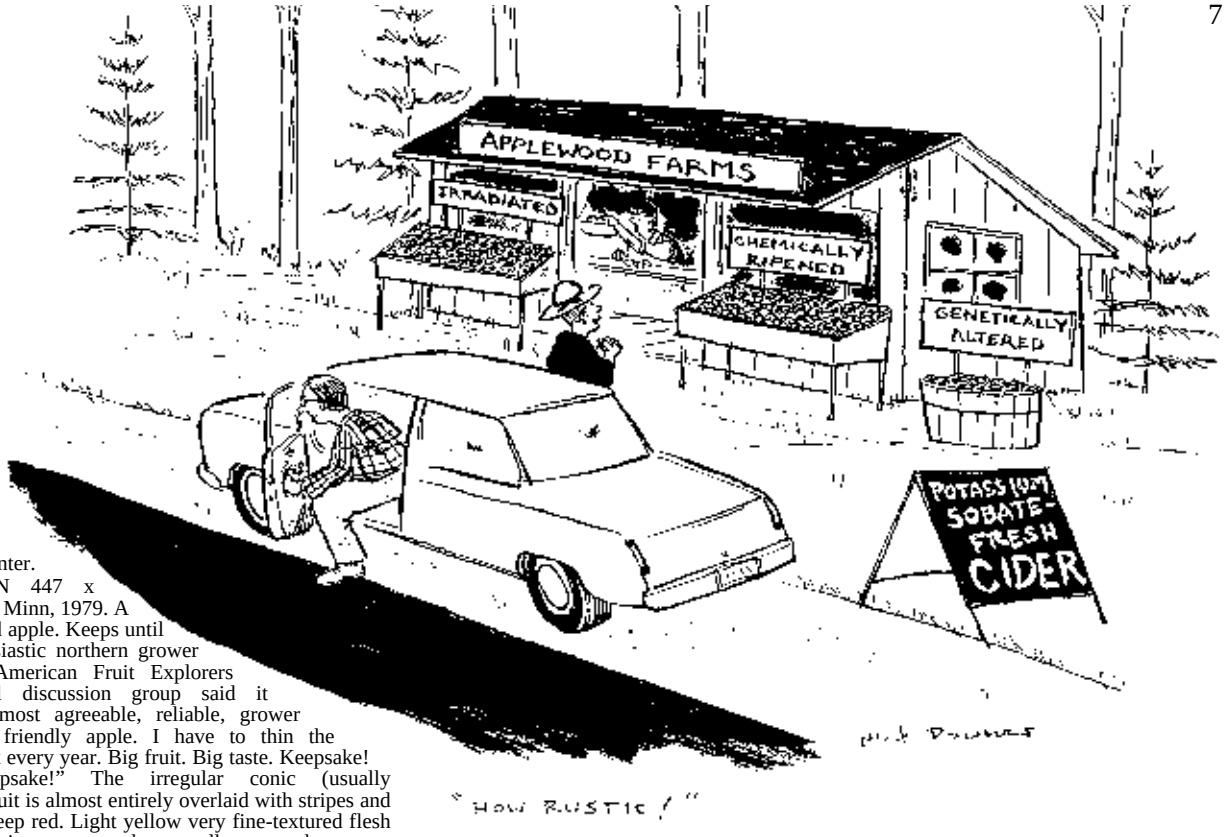
0330 Honeygold, $15.00

Hubbardston Nonesuch Mid fall-early winter. Hubbardston, MA, 1800 or earlier. One of the most famous of all Massachusetts apples, used to be very popular and still found here and there today. In fact two years ago I located a beautiful old specimen in Lincolnville, Maine, still bearing regular crops of breathtakingly beautiful fruit. Medium to very large roundish-conic fruit, mottled and striped with reds, oranges, yellows and greens, often covered with a veil of russet and a scattering of large grey dots. Not only wonderful to look at, but also to eat. A superior subtly-flavored fresh eating apple with crisp tender juicy white flesh that glistens like ever-so-slightly-melted icy snow. Vigorous tree produces large—often annual—crops. Keeps into January. Z4-6. ❄

0337 Hubbardston Nonesuch, $15.00

Hudson's Golden Gem Fall. Tangent, OR, 1931. Discovered in a fence row and introduced soon afterward by A. D. Hudson's Wholesale Nurseries. A local favorite in Oregon which has begun to gain a following practically everywhere apples are grown. Popularized in Maine through the efforts of Mark Fulford. Thanks Mark! Magnificent medium-to-large long conical solid-light-tan russeted long-stemmed fruit. Sweet juicy crisp light smooth yellow pear-like flesh. Stores several months. Naturally small but vigorous productive annual tree with resistance to scab, powdery mildew and fire blight. This is a truly fine fruit of unique appearance and exceptional flavor. Blooms mid-late. Z4-9. ❄

0340 Hudson's Golden Gem, $15.00



Keepsake Winter. MN 1593 (MN 447 x Northern Spy.) U Minn, 1979. A most aptly named apple. Keeps until July. One enthusiastic northern grower on the North American Fruit Explorers (NAFEX) email discussion group said it perfectly: "My most agreeable, reliable, grower overwhelmingly friendly apple. I have to thin the whoopee out of it every year. Big fruit. Big taste. Keepsake! Keepsake! Keepsake!" The irregular conic (usually medium-sized) fruit is almost entirely overlaid with stripes and a wash of very deep red. Light yellow very fine-textured flesh is hard, crispy, juicy, sweet and gets yellower as the season progresses. Excellent flavor, but you must wait at least a month after picking. Moderately vigorous medium-sized tree usually bears annual crops. Reaches its prime in northern New England and the upper midwest. Somewhat resistant to scab. Blooms late. Z3-4. ❄

0400 Keepsake, $15.00

Kingston Black Fall. Unknown parentage. Somerset, UK, early 19th c. Recently there has been a renewed interest in making hard cider, which for centuries was America's most popular drink. Beginning this year we will be offering some of the best cider-apple varieties. These are not eating apples; they are used exclusively for hard cider. Cider varieties are classed as either *bittersweet*, *bittersharp*, *sweet* or *sharp*. Kingston Black is a bittersharp, high in tannin and high in acidity. It produces a full-bodied distinctively flavored "vintage" cider with a nice blend of acid, tannins and sugar. One of the few varieties which makes a high-quality *single-variety* hard cider. Medium-small conical yellow-orange fruit flushed with dark maroon is semi-sweet with a strongly astringent aftertaste. The tree is a reliable bearer, but is a bit gangly and needs careful pruning. Our thanks to Steve Wood of Poverty Lane Orchards in Lebanon, NH, for his advice and for providing us with piles of scionwood. Blooms midseason. Zones 4-7. ❄

0412 Kingston Black Cider Apple, $15.00

Liberty Late Summer-Fall. NY 55140-19 [Macoun x PRI 54-12 (PRI Coop complex cross includes Rome Beauty, Jersey Black, McIntosh, Wealthy and *M. floribunda*)]. NY Station, 1978. Often cited as the best of the disease-resistant varieties, particularly in the Northeast. Somewhat similar to Macoun. A handsome medium-sized round-conic bluish-pinkish-red apple with crisp white flesh of very good dessert quality when dead ripe. Excellent cooking and cider too. Keeps till late fall. Begins fruit production at an early age, bearing consistent heavy annual crops. Naturally well-structured sturdy tree is easy to care for. Considered to be 100% scab immune, though not resistant to insects or other lesser apple diseases. Allowing Liberty to crop too heavily at a young age can stunt final tree size and reduce productivity. Even with mature trees, thinning fruit clusters is important to maintain fruit size. Blooms early to midseason. On MM111 semi-dwarf rootstock. Z4-5. ❄

0436 Liberty semi-dwarf, $15.00

Liveland Raspberry Summer. Russia, prior to 1870. Also called **Lowland Raspberry**. One of the hardiest and highest quality summer apples. Still found here and there in Maine dooryards and farm orchards. Unlike many summer apples, tart and hard and green one day and soft and mushy the next, Liveland Raspberry is actually crisp and breaking when it's ripe and stays that way just long enough to use and enjoy the crop. Medium to large round fruit with clear waxen white skin is striped, shaded and marbled with light crimson. The white flesh, often stained with red, is tender, mild, pleasant, subacid, almost sweet. Very tender skin. One of the best varieties for summer fresh eating and of course for cooking. Ripens up here towards the later part of August. Vigorous productive small to medium-sized tree. Disease and pest resistant. Will not store. Z3-4. ❄

0450 Liveland Raspberry, $15.00

McIntosh Fall. Thought to be a seedling of Fameuse or perhaps St. Lawrence x Alexander. Dundela, Ontario, 1811. First discovered by John McIntosh on his farm near the St. Lawrence River in 1811. Originally called Granny's Apple, then McIntosh Red, sometimes Gem, and finally McIntosh. Certainly the most important apple in the Northeast. Although not planted in many other locations, it grows to perfection in our cool climate. There are many strains of McIntosh, some striped, some blushed, some solid red. Recent strains have been selected for traits other than flavor, and the variety has gotten a bad reputation. This strain has green ground color overlaid with red stripes and blush. It was planted in about 1910 in Mercer, ME. Many of these trees are still alive and bearing large crops. Of all the strains we have sampled, this one has the best "Mac" taste. This is a delicious aromatic apple. Annual cropper. Large beautifully rounded spreading strong easily managed tree. Susceptible to scab. Does not keep well in ordinary storage. Blooms midseason. Z4-5. ❄

0478 McIntosh, $15.00

Moses Wood Summer. Unknown parentage. Winthrop, ME, before 1847. If you're like Gene who won't eat an apple unless it's tart, this may be the variety you've dreamed about. It's a late-summer dessert and cooking apple, medium-sized, roundish to conic with distinct ribbing and lobes around the calyx end. Light yellow skin with a pink blush and red stripes. White medium- to fine-grained tender very juicy flesh, definitely *subacid*. Excellent tart fresh eating, also makes a particularly flavorful pie. Vigorous upright productive tree. Named for the itinerant grafter who traveled on horseback spreading apple varieties around central Maine many decades before Fedco was even a gleam in anyone's eye. Z4-5. ❄

0500 Moses Wood $15.00

Northern Spy Winter. Chance seedling. East Bloomfield, NY, about 1800. A bronze plaque marks the site of the original tree of this former commercial giant, which is still a renowned Maine favorite. Large delectable all-purpose fruit has yellow background covered all over with pink and light red stripes and wash. Very juicy and tender. Even though the thin skin bruises easily, it still keeps extremely well. Medium-to-large moderately vigorous slightly upcurving late-blooming long-lived tree. Its one drawback is being slow to come into bearing, although for us it has been worth the wait. Prefers fertile well-drained soil. There has been much speculation as to the origin of the odd name. Some maintain it was named after the legendary Northern Spy, a notorious hardcore abolitionist hero during the early 19th century who assisted slaves in escaping north, set up safe houses for them *en route*, and robbed and killed slave catchers. Our Northern Spy scionwood comes from an extremely old tree in Falmouth, ME. Z4-6. ❄

0545 Northern Spy, $15.00

❄ = grown by a member of the Fedco growers coop

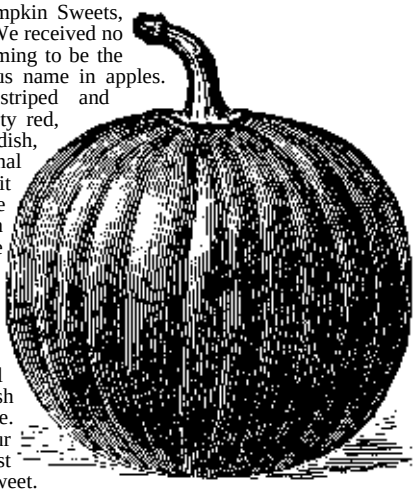
Pitmaston Pineapple Early fall. Thought to be a seedling of Golden Pippin. Herefords, England, c. 1785 This apple is in the same class as Egremont Russet, Ashmead's Kernel, and other old highly flavored English dessert apples. What an incredible treat it's been to have these small conical solid yellow russetted golf-ball-sized apples coming ripe in mid-September. You can eat 3 or 4 at a sitting, or pepper your pockets with them for later. The aromatic juicy fruit is variously described as slightly sweet, sweet-sharp, sugary, honeyed, nutty, rich, intense, distinctive, pineapple-like. Although I'm not as good as I hope to be in pin-point pomological taste descriptions, I do like Pitmaston, largely because the flavor is not only sweet, but intense and unique. Moderately vigorous upright habit. Scab resistant. Keeps a month or so. Blooms late. Z4-6. ❄

0600 Pitmaston Pineapple, $15.00

Pomme Grise Early Fall. Unknown origin. Probably brought to the St. Lawrence Valley in Canada by French immigrants and may have originated in Europe as early as the 17th c. Found its way into Maine about 150 years ago. Medium-small oblate russet with a well-deserved longtime reputation as one of the very best dessert apples. Up against some heavy-hitters, it was the surprise winner at the fall taste test in Cherryfield three years ago. Firm, crisp, juicy, rich, sub-acid and aromatic. Superb fresh eating. The greenish skin is completely covered with a chalky russet, sometimes with a red blush. The combination of the chalky russet and the green ground color give it its grey (grise) appearance. Vigorous dense round spreading annual-bearing productive tree prefers northern locations. Keeps fairly well. Z3-4. ❄

0606 Pomme Grise, $15.00

Pumpkin Sweet of Orland Fall. Unknown parentage, possibly Maine, 19th century. For years I had heard of a Pumpkin Sweet that originated in Maine. Before the 2000 Common Ground Fair I put out a call for Pumpkin Sweets, hoping to locate the variety. We received no fewer than 6 contenders claiming to be the rightful owner of this famous name in apples. One was medium-sized, striped and mottled with orange and rusty red, slightly upright-oval to roundish, with pronounced longitudinal creases. Bob Dow picked it from an ancient tree on the Harvey Sanders farm in Orland and brought it to me pointing out that "it looks just like a pumpkin." It did. Bob describes the fruit better than I can: "It has a real nice, mellow, sweetish, flavor. Not a harsh apple. Real fruity—not acidy. Creamyish texture. Tasty right off the tree. You don't have to bust your gums to get into it." Looks just like a pumpkin and tastes sweet. Eat it before November. Not the cooking apple, *Pound* Sweet. We're still on the lookout for a second Pumpkin Sweet that originated in southwestern Maine, possibly near Baldwin. Z4-5. ❄



0635 Pumpkin Sweet of Orland, $15.00

Red Baron Late Summer-Early Fall. MN 1500 (Golden Delicious x Daniels Red Duchess). U Minn, 1969. Large to very large blocky rounded slightly truncate rich deep yellow fruit, about half of which is covered with rosy-orange-red stripes and blush. "It looks very pretty on the tree," was how Aroostook grower Steve Miller put it to me. He and wife Barb are also big fans of Red Baron's flavor, hardiness and storability: "We really like these apples." The crisp glistening yellowish flesh is airy but juicy, pleasantly subacid, and has a nice sweetness. Good for fresh eating and culinary purposes, I'll bet it would also make a very good dried apple. Fast-growing productive and precocious tree bears young and annually. Scab resistant. Keeps until the first of the year. No dieback in northern Maine. Blooms midseason. Z3-4. ❄

0675 Red Baron, $15.00

Red St. Lawrence Early Fall. Branch sport of St. Lawrence. Newburgh, ME, 20th century. A superb early-fall all-purpose variety which originated as a spontaneous mutation (sport) on one branch of Roger Luce's old St. Lawrence tree in Newburgh. Although marked with St. Lawrence's typical striking dark red lines and thin bloom, the medium-large round-oblate apples also have a unique rich red ground-color. The dark red stripes and the lighter red background is stunning. No other apple looks like it; once you see it you'll never forget it. Tender sweet mildly subacid flesh is tinted with red. Very good eating and very good cooking. Perfect for flavorful and colorful sauce. Moderately vigorous long-lived healthy medium-sized tree. Good to heavy crops ripen unevenly over several weeks in early-mid fall. Blooms midseason. Z3-4. ❄

0677 Red St. Lawrence, $15.00

Redfree Summer. Coop 13 (PRI 2175-7=Raritan x PRI 1018-101). PRI Coop, 1981. One of the newer releases from the PRI (Purdue, Rutgers, Illinois) breeding program. Medium-sized round firm crisp juicy solid-red summer apple that ripens mid-late August in central Maine. Excellent fresh eating and incredible creamy thick coarse sweet applesauce. Keeps two weeks in the kitchen or two months in cold storage. Disease resistant and scab immune. Frequently mentioned as a favorite among Maine organic and IPM growers. Vigorous somewhat upright habit. Blooms midseason. On MM111 semi-dwarf rootstock. Z4-6. ❄

0680 Redfree semi-dwarf, $15.00

Smokehouse Fall. Seedling of Vandevere. Lampeter Township, PA, about 1800. Many heirlooms have disappeared, but Smokehouse has slowly and steadily gained popularity for the past 200 years and is still featured in Pennsylvania's Adams County Nursery commercial catalog. So popular in Pennsylvania that it should be called their state apple. Medium-large roundish-oblate mildly flavored delicately aromatic subacid fruit. Pies, sauce or eat it fresh. I like its subtle flavor right off the tree. Substantial fruit quickly fills the cider press, pie pan or sauce pot. Although its name comes from having originated adjacent to William Gibbons' smokehouse, the fruit *looks* smoky, colored with a muted blend of yellows, greens and a reddish-brown blush. The long willowy branched tree bears annually and is easily recognized in the orchard. Keeps well into late winter. Some scab resistance. Blooms midseason. Z4-6. ❄

0735 Smokehouse, $15.00

Somerset of Maine Late summer-early fall. Unknown parentage. Mercer, Somerset County, ME, before 1850. Also known as **Somerset.** A large oblate eating and cooking apple with excellent flavor. Tender, juicy and subacid. Buttery yellow skin covered with stripes and a wash of rusty red. In the 1907 *Maine Agricultural Experiment Station Report*, W.M. Munson wrote, "It is an excellent apple and, when known, is highly prized as an early market variety." A darn good pie apple that immediately acquired a fervid —almost rabid—following in its debut at last fall's pie taste-off. Those folks were wild. The late Edward Bobalek, fruit collector and Orono professor, described it as a summer apple with the flesh and flavor of a winter fruit. Will keep into late fall. Very vigorous, spreading tree. Still a local favorite 50 miles north in Abbot, ME, where immigrants from Mercer brought trees several generations ago. Z4-5. ❄

0740 Somerset of Maine, $15.00

Stark Winter. Unknown parentage. Delaware County, OH, about 1850. Looking for a top-quality truly tart annually bearing winter apple? Try Stark. Excellent tart eating, cooking, drying, cider and storage. Medium-large fruit, round to conic shape with smooth skin, mostly covered with pink and red streaks. Very vigorous, reliably productive, large upright-spreading vase-shaped tree. I do virtually nothing to my tree and it produces very decent crops annually. Adaptable to many soils. Scab-resistant. Former mainstay of many Maine farm orchards and a leading commercial variety 100 years ago. Not to be confused with Starkey (below) or Stark Brothers' Nursery. Midseason bloomer. Z4-6. ❄

0755 Stark, $15.00

Starkey Fall-Early Winter. Seedling of Ribston Pippin. Vassalboro, ME, 1820. My favorite fall fresh-eating apple, its exquisite combination of crisp sweetness and tartness reminiscent of a perfectly ripe Concord grape. I get into them beginning in late September; perfect eating begins just about Christmas. Still quite decent in late winter. Medium-sized roundish fruit is rosy red, covered almost completely with fine lines, shades and stripes of darker reds and sprinkled with pronounced white dots. Originated on the farm of Moses Starkey, a Quaker minister in North Vassalboro. Listed in *The Apples of New York* (1905) but never got much notice outside central Maine where it was once quite popular. Very productive annually bearing tough medium-large tree. I love this apple. Z4-5. ❄

0757 Starkey, $15.00

Sweet 16 Early Fall. MN 1630 (MN447 x Northern Spy). U Minn, 1979. Whenever anyone eats a Sweet 16 for the first time, you know they will be surprised. Fine-textured crisp flesh contains an astounding unusually complex combination of sweet nutty and spicy flavors with slight anise essence, sometimes described as cherry-like. Sam Shaw (my nephew, then age nine) declared, "It has a ton of different kinds of flavors." Ed Fackler (nationally esteemed pomologist, then about "our" age) described it as "expensive bourbon with a shot of vanilla." Either way, this is an amazing apple. Truly excellent fresh eating. Round-conic bronze-red medium-sized fruit, striped and washed with rose-red. Annual bearer if thinned. Very hardy moderate-sized vigorous vase-shaped tree grows upright with willowy branches that get loaded with fruit but do not break. Grower-friendly. Becoming more popular each year from Maine to Indiana. Some resistance to scab. Keeps till early winter. Blooms midseason. Z3-6. ❄

0777 Sweet 16, $15.00

Wealthy Fall. Cherry Crab seedling. Excelsior, MN, 1860. A Maine native of sorts, the seed having come from Bangor. Superb all-purpose fall apple, one of the most famous of all hardy varieties. With its perfect texture and complex flavors, Wealthy once again proved itself to be the undisputed champion for fall apple pies in the 2001 Belgrade Lakes Pie Taste-Off. Our old friend, long-time orchardist Francis Fenton, believes Wealthy—not McIntosh—deserved to be the favorite commercial apple of northern New England. The trees his father planted in Mercer 97 years ago are still going strong. Round-oblate medium-sized fruit is pale greenish-yellow streaked with carmine. About as firm as McIntosh. Tender very juicy sweet sub-acid flesh is white, often stained red. Good eating and even better cooking! Ripens over a long period. Productive moderately vigorous long-lived small to medium-sized tree. Blooms early. Z3-4. ❄

0865 Wealthy, $15.00

Winekist Summer. Unknown parentage. Winthrop, ME, 20th c. One of two varieties introduced by Winthrop orchardist Morris Towle. Medium-sized red-fleshed apple with quite decent—though extremely tart—flavor. Leaves are tomentose (soft and woolly) and have a dark reddish cast to them. Blossoms are light pink. Wood, when you cut into it, is pink. Fruit is medium-sized and wine red with areas and stripes of darker red and very small white dots; the overall effect is dark red. Very juicy coarse flesh is almost solid beet red: a real eye popper! A great addition to cider or sauce. Tree is bushy, only around 15' tall. Blooms midseason. Rare. Z4-5, maybe 6. ❄

Winthrop Greening Late Summer-Fall. Ichabod Howe Farm, Winthrop, ME, before 1800. Ichabod Howe (1731-1810) laid out many of Winthrop's roads, organized construction of its first church, was an accomplished trapper and hunter, served seven terms as selectman and was, appropriately enough, Winthrop's first orchardist. Although I know of many beautiful apples, this one is my favorite for beauty and up near the top for taste. One of the few Maine apples to receive attention from outside the state over the years. Two years ago I ate delicious specimens at the Tower Hill Botanic Garden in central Massachusetts. Quite popular throughout central Maine as late as 1920; now all but unknown. Large 3¼" flattish-oblate beautiful fruit, light green with a red-orange wash, small greenish dots and splashes and ribs of russeting, usually with a patch of russet radiating from the stem. Very interesting sweet flavor, medium-low acidity, with a crunch. This is a great apple. Blooms late. Z4-6. ❄

0905 Winthrop Greening, $15.00

Zabergau Reinette Winter. Hausen on the Zaber, Württemberg, Germany, 1885. Very large, even huge, round-conic, sometimes lopsided greenish-bronze russeted fruit with a red-orange blush. Firm white fine-grained flesh with a rich nutty intense sweet-sharp flavor. Excellent fresh eating and good for cooking. One of the favorites of local fruit explorer and orchardist Howard Wulf who has tested dozens of varieties and has been encouraging me for years to put it in the catalog. Keeps well until midwinter and sweetens up during storage. Productive upright vigorous tree. Blooms midseason. Z4-6. ❄

0934 Zabergau Reinette, $15.00

Prepare this fall for spring planting
Fertilize newly planted fruit trees in spring
Feed established fruit trees

If you're interested in preparing locations for your trees this fall, or for feeding existing fruit trees, the following amendment recipe should address most sites in the eastern U.S., which tend to be acidic, and moderate to low in calcium and phosphorus. (You also can apply this mix as a mulch to your newly planted tree in the spring.) To order any of these products, refer to the Organic Growers Supply section of our Seed catalog.

Prepare in fall to plant a fruit tree next spring:

Without digging the hole, cover an area 4-6' in diameter with:

- 5 lbs aragonite (long-term calcium)
- 5 lbs colloidal phosphate (short-term calcium and phosphorus)
- 5 lbs azomite (long-term minerals and trace minerals)
- 5 lbs granite meal or greensand (for improved soil texture)
- 2-3 lbs menafee humates (aids mineral and rock-powder breakdown)
- 2-3 lbs greenstone (aids plants in nutrient uptake)

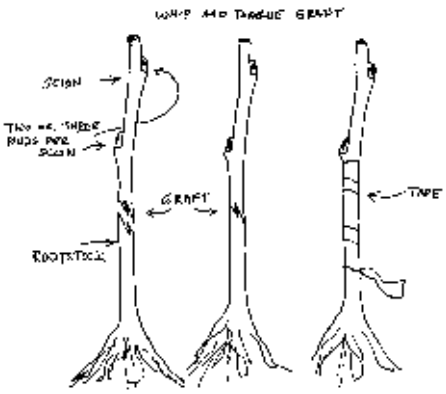
For building high levels of humus, also add:

- 2 lbs alfalfa meal
- 2 lbs bone meal
- 2 lbs kelp meal
- 2 lbs blood meal
- 100 lbs compost (1/8 yard)
- BioDynamic preps (optional)

Cover with a 12" mulch of lawn clippings, leaves or "brush" chips, which will smother the sod, conserve moisture, prevent leaching, and provide a habitat for soil organisms to break down the recipe. In the spring, pull back the mulch and dig your tree hole, incorporating the mineral supplements and compost into the backfill.

Feed an existing fruit tree:

Cover the surface of the ground out to the drip line with the same materials listed above. For larger trees (five years and older) increase the mineral amount to 10-15 pounds each. For ancient trees you can add up to 25 lbs of each mineral in a ring beneath the drip line.



Hardy Rootstocks

We consider these to be some of the best rootstocks for home or commercial use. Any of these produce fruit suitable for wildlife without grafting. For rootstocks not listed, or for larger calipers or larger quantities, please write for information. We also offer grafting supplies in the Organic Growers Supply section of the seed catalog.

Please join us Sunday, March 30, 2003 at the Maine Tree Crop Alliance annual scionwood exchange and grafting workshop in the exhibition hall of the MOFGA permanent site in Unity.

***Malus* 'Antanovka'** (Apple) Hardy Russian seedling rootstock for standard-sized apple trees. Z3. (1/4" caliper)

1040 Antanovka, bundle of 10 for $15.00

EMLA 26 (Apple) Produces a tree about half the size of a standard tree, in between the size of M9 and M7. Appears to be hardier than M7, producing better quality fruit. Adaptable to all but badly drained soils, not as sensitive to mineral deficiencies as some other rootstocks. Staking recommended in exposed locations. Z5, maybe 4. (1/4" caliper)

1042 EMLA 26, bundle of 10 for $15.00

Prunus americana (Plum) Seedling rootstock for American, Japanese or hybrid plums. See item #**2707**.

***Prunus cerasifera* 'Myrobalan'** (Plum) Seedling rootstock for European type plums. Not recommended for American or hybrid plums. Z4. (1/4" caliper)

1052 Myrobalan, bundle of 10 for $15.00

***Pyrus communis* 'Winter Nelis'** (Pear) Seedling rootstock for pears. Exceptional resistance to pear decline. Good uniformity. Z4. (1/4" caliper)

1058 Winter Nelis, bundle of 10 for $15.00

Pears

Pyrus communis are native to temperate Europe and Asia and can grow up to 100' tall in the wild. Many pear varieties are hardy in New England, but tend to take longer to come into bearing than apples. Further south, pears tend to bear annually. However in Maine, where they are approaching their northern limit and due perhaps to our harsher climate, pears tend to bear biennially. Pick fruit when green and ripen it on the shelf. Or, for optimal eating, try Ed Fackler's method: "...when fruits exhibit slight color changes, begin to test pressure (using your thumb) near the stem. When there is a slight 'give', pick all the fruit, store at or near 35˚ for 7 or more days. Then remove them as needed, allow them to sit at room temps for 2-4 days which allows them to ripen to peak flavor."

Pear blossoms are less attractive to bees than apple blossoms, so pears should be planted closer together to ensure pollination. Although some pears appear to be self-pollinating, **we recommend a second variety for pollination**. Bloom dates for all varieties are similar. Plant pear trees 15-20' apart.

We continue to acknowledge the generous and ongoing assistance we've received from orchardist and dedicated fruit explorer Howard Wulf in tracking down some of our best pears. Howard has introduced us to a number of excellent varieties, allowed me free rein in his pear and apple orchard every fall, and given us large amounts of scionwood. He has been particularly instrumental in our offering Comptesse Clara Frijs, Tyson and Vermont Beauty. (3 1/2-6' trees)

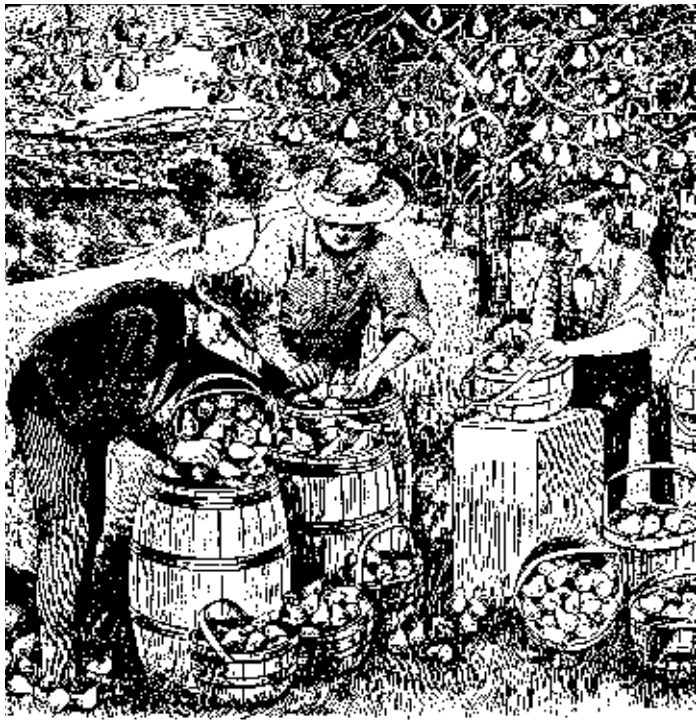
Bartlett Late Summer. Seedling found in Aldermaston, England; intro to the U.S. late 1700s. Originally and still known in Aldermaston as **Stair's Pear**, known in the rest of England and in France as **Williams' Bon Chrétien**. Most widely planted of all pears, accounting for 75% of the U.S. commercial crop. Adaptable to many climates and soils. Large yellow classic pyriform (pear-shaped) fruit; very good quality. Full reliable annual crops. Large, vigorous, easy to grow, long-lived, and bears young. Susceptible to fire blight. Will not pollinate Seckel. Z4-5. ❄

1100 Bartlett, $15.00

Bosc Fall. Seedling in Lourain, Belgium, 1807. Also called **Beurre Bosc**. Large and long-necked; dark rich yellow covered with cinnamon-brown russet. Distinctive sweet rich spicy buttery flavor. Melting juicy tender white flesh has smooth texture and a pleasing aroma. Somewhat gritty around the core. Good pollinator. Large vigorous upright spreading tree bears huge crops. A longtime favorite throughout central Maine. Z4. ❄

1120 Bosc, $15.00

❄ = grown by a member of the Fedco growers coop



Chapin Mid-Late Summer. Open-pollinated seedling of Seckel. Seed planted in 1908. Introduced in 1945, NY St Ag Exp Stn, Geneva, NY. After taking a long hiatus from growing trees for Fedco, local orchardist and fellow fruit explorer Mark Fulford has contributed three of his favorite pears, as well as two favorite plums, to our 2003 list. Chapin is one of the three. Reminiscent of Seckel in form and flavor, Chapin is larger and ripens several weeks earlier, about the time of Clapp's Favorite: late August up here. Greenish yellow—sometimes red—with considerable russeting. Juicy sweet smooth richly aromatic flesh provides highest quality fresh eating. Open-formed vase-shaped regularly productive tree has medium vigor. Z4. ❄

1128 Chapin, $15.00

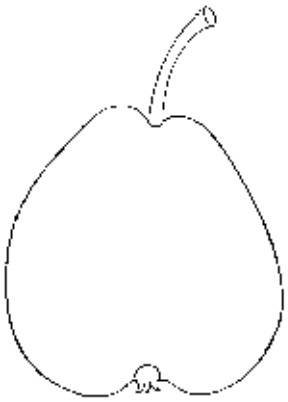
Clapp Favorite Mid-Late Summer. Said to be Bartlett x Flemish Beauty. Dorchester, MA, before 1860. Very hardy pear common in Maine for over 100 years. Medium-large fruit is pale lemon yellow, mottled bright red. Round-bodied with a short neck. Medium-firm fine-textured with granular center, very juicy melting sweet fruit with that absolutely perfect "pear flavor" for fresh eating. Pick before perfectly ripe and finish indoors (tendency to soften at the center after ripening). Fedco grower and neighbor Gordon Swift gets such a huge crop on his ancient tree every year that he can't even give them all away. Large long-lived upright very productive annual bearer does well in heavy soils. Z4. ❄

1130 Clapp Favorite, $15.00

Comptesse Clara Frijs Summer. Germany, 19th c. High-quality dessert pear, fairly common in the Canadian Maritimes but quite rare in the States. As with apples, many of the best pears are virtually unknown; this is one of them. Grower Mark Fulford says, "The flavor is what gets me." It's the "most like nectar" of any of the 40 varieties he's grown. Buttery perfumy medium-sized smooth-skinned yellow to slightly green pyriform fruit sometimes has a sunnyside blush. Keeps for a month. Solid rugged hardy tree. Z4. ❄

1135 Comptesse Clara Frijs, $15.00

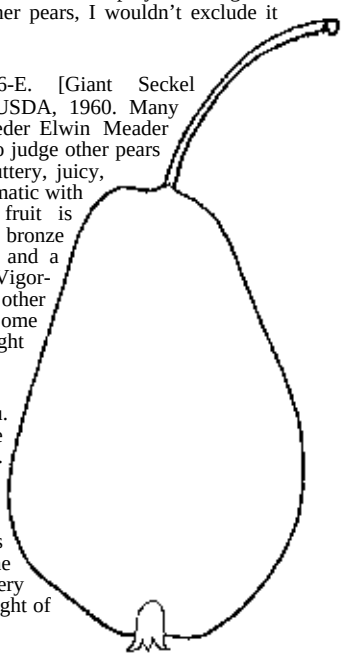
Dana Hovey Winter. Thought to be a seedling of Seckel. Roxbury, MA, about 1854. Introduced by the avid nineteenth-century fruit enthusiast Francis Dana who dubbed it *Dana's Hovey* in honor of CM Hovey, Boston nurseryman and author of *The Fruits of America*. Sometimes called **Winter Seckel** because of its similarity to Seckel. Small intensely sweet highly aromatic tender storage pear. Excellent flavor; possibly the best eating of all winter pears. Keeps extremely well. Harvest in October and store in a cool dry spot. Still great eating in December—sometimes even as late as February. Rich golden-yellow russeted fruit. Hardy vigorous moderately productive spreading tree adapts to a variety of soils. No scab and relatively few bugs. ❄



1140 Dana Hovey, $15.00

Luscious Early Fall. SD E31 x Ewart. SD State U, 1967. One of the few recent pear introductions that deserves a place in the home orchard. Produces an annual crop for us of absolutely delicious medium-sized fruit. Bears so heavily that it's apt to break branches. The soft fine extra-juicy off-white flesh is sweet and flavorful with almost no grit cells. Thin yellowish skin is covered with small tan dots. Appears to be self-pollinating and seems to defy the dreaded pest plum curculio despite a lack of spray. Although some literature warns it will not pollinate other pears, I wouldn't exclude it from my orchard. Z4 or perhaps Z3. ❄

1175 Luscious, $15.00



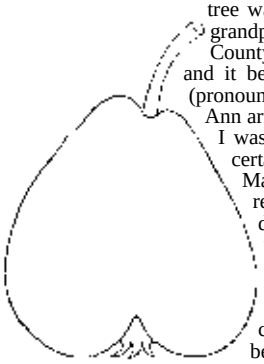
Magness Late Summer. US 3866-E. [Giant Seckel (SP149490) x Doyenne du Comice.] USDA, 1960. Many experts agree with renowned plant breeder Elwin Meader that Magness is the standard by which to judge other pears in flavor and quality. Rich, melting, buttery, juicy, sugary, tender, highly perfumed and aromatic with almost no grit cells. Medium-sized fruit is greenish-yellow with a light dull bronze russeting, sometimes a crimson blush, and a short pyriform—almost oval—shape. Vigorous spreading tree. Will not pollinate other varieties. Fruit set can be inconsistent. Some insect resistance and excellent fire blight resistance. Z4. ❄

1180 Magness, $15.00

Patten Late Summer. Orel 15 x Anjou. Iowa State College, 1922. The best-quality large hardy pear available. Excellent fresh eating with sweet "high flavor." Fine-grained soft flesh has minimal grit cells. Similar shape to Bartlett. Good canning pear. Tree is extremely adaptable, growing all over the Northeast. Long willowy branches very flexible, won't break even under the weight of its heavy crops. Z4. ❄

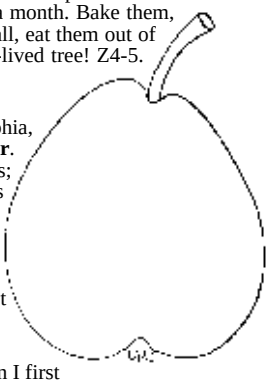
1200 Patten, $15.00

Regie's Baby Late Summer. Thought to be **Manning's Elizabeth**, Belgium, 19c. A couple of years ago Anne Cole-Fairfield of Westport Island, ME, contacted me about a pear she wanted us to save. The huge 35' tree was already well established in 1909 when her grandparents purchased their farm in Sarver, Butler County, PA. No one could identify the small fruit and it became locally famous as Regie's Baby Pear, (pronounced *Ree*-jee's) after her father Regis Cole. Ann arranged for her daughter to send fruit to me and I was extremely impressed. Although I'm still not certain of its identity, I'm guessing it may be Manning's Elizabeth, an old Belgian variety once relished in the New World. Downing's description in 1886 and Thomas's in 1908 both fit. The smallish fruit is rounder than Bartlett but more enlongated than Seckel. Yellow skin is slightly russeted and blushed with red. Sweet flesh is never grainy or mealy. Anne calls it "the best pear I ever ate." Annually bearing with larger crops every other year. The Pennsylvania tree produced a stupendous 45 bushels one record season. Pick in August and store for a month. Bake them, can them, put them into pear butter, but most of all, eat them out of hand. Large vigorous incredibly productive long-lived tree! Z4-5. ❄



1215 Regie's Baby, $15.00

Seckel Late Summer. Seedling near Philadelphia, PA, early 1800s. Sometimes called **Sugar Pear**. Usually considered the best-flavored of all pears; even the skin is delicious. Small fruit is yellowish-brown russeted with slight red blush. Juicy, spicy, distinctive and aromatic. Eat ripe off the tree or pick firm and ripen later. Very productive annual-bearing large tree, easy to grow. Scab and fireblight resistant. Will not pollinate Bartlett. Z4. ❄



1230 Seckel, $15.00

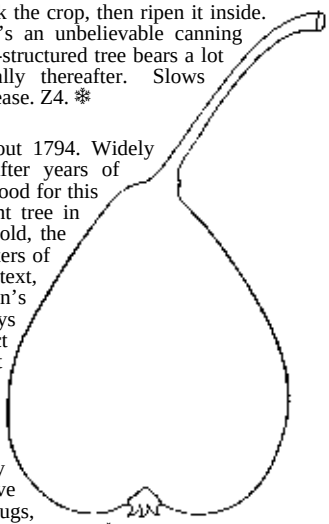
Stacyville Late Summer. Unknown origin. When I first saw this pear in an old orchard in Stacyville, ME, I thought that the 50' tall vase-shaped tree was an elm. It was spectacular, dwarfing the surrounding apple trees. That tree, now held together with cables, is extremely old but still bears huge crops. My eleven-year-old Stacyville is also loaded with fruit. Medium-sized pears have a roundish teardrop-shape and are light yellow with a beautiful orange to greyish-red blush. Sweet fruit has a delicious citrusy aftertaste. Self-pollinating, annual bearing, disease resistant, extremely hardy and very vigorous. Even seems to fend off plum curculio without any spray. Rare. Z3. ❄

1240 Stacyville, $15.00

Tate Late summer. Unknown parentage and unknown origin. Years ago the late Charles Berry of Unity introduced this large smooth sweet pear to Mark Fulford. Mark has no idea where the pear originated or whether Tate is the correct name. Neither of us has been able to find a single reference to it in any book. But the smooth sweet-tasting pear long ago commanded a spot in Mark's orchard and this year he's produced enough trees for us to offer it for sale. Technically obovate obtuse pyriform, the large fruit is shaped like a squat Bartlett. Tender yellow skin is tarnished with a bronze cheek but no russet. When one drops it's time to pick the crop, then ripen it inside. The fruit will store 3 or 4 weeks. It's an unbelievable canning pear—one fruit fills the jar. Small well-structured tree bears a lot of fruit young and continues annually thereafter. Slows remarkable resistance to insects and disease. Z4. ❄

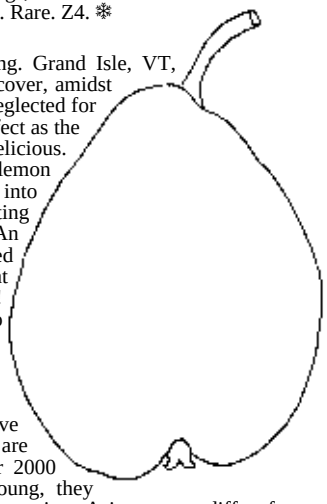
1263 Tate, $15.00

Tyson Summer. Jenkintown, PA, about 1794. Widely planted in Maine for generations. After years of looking for a good source of grafting wood for this pear, we finally located a huge ancient tree in nearby Freedom. Well over 100 years old, the tree has lived through all the great winters of the 20th century. The definitive 1921 text, *The Pears of New York*, calls Tyson's flavor "second only to Seckel," and says that the "tree is the most nearly perfect of any pear grown in America." Went out of favor because it was not as large or pretty as Bartlett. Medium-sized roundish pyriform deep dull-yellow fruit with some russeting and no blush is very juicy, sweet and aromatic. Very large vigorous annually productive upright spreading tree. Tolerant of bugs, disease and weather. Fire-blight resistant. Rare. Z4. ❄



1270 Tyson, $15.00

Vermont Beauty Fall. Chance seedling. Grand Isle, VT, about 1860. How surprised I was to discover, amidst the slime in a crate of rotting pears I'd neglected for weeks, the Vermont Beauties just as perfect as the day I picked them and still absolutely delicious. Medium-sized slightly pyriform fruit, lemon yellow with a bright red blush that fades into pinkish-red dots. Tender melting fine-grained juicy yellow-tinged flesh. An excellent dessert pear. Medium-sized healthy productive vigorous upright spreading tree. Keeps for several weeks! Another excellent pear we are pleased to reintroduce. Rare. Z4. ❄



1287 Vermont Beauty, $15.00

Asian Pears

Pyrus pyrifolia have been grown in China, where there are thousands of named cultivars, for over 2000 years. Very long-lived and bearing young, they often produce extremely heavily at maturity. Asian pears differ from European pears in texture, taste and appearance: they are crisp and very juicy, sweet and mild with a nutty background, and are roundish in shape. Although partly self-fruitful, pollinators are recommended. The two we offer will pollinate one another. Some European pears, notably Bartlett, will also act as pollinators as long as bloom times overlap. Because they set so heavily, to ensure large fruit size, thin the crop once or even twice during the first two months after bloom. Unlike European pears, they won't reach perfection until they have ripened on the tree. When the seeds are black, the pears are ready to pick. They ripen in late summer and keep several weeks under refrigeration. Cultural requirements are similar to European pears. Although there have been occasional reports of Asian Pears growing in Zone 4, they should be considered a Zone 5 plant. ($3^1/_2$-6' trees)

Seuri Late summer. Very large round or slightly elongated yellow fruit is mottled green-brown and partially russeted. Fine textured crisp juicy aromatic and flavorful flesh keeps about a month. Heavy bearer. Thin to one fruit per cluster to maximize size. Vigorous tree with an upright habit and very large (up to 6") yellow-green foliage. Handles wet soils better than many fruits. Fire blight resistant. Z5. ❄

1350 Seuri, $15.00

Tsu Li Late summer. Ancient Chinese variety originating in the Shantung Province. Very large—up to two-pound—oddly oval to pear-shaped light green to yellow fruit speckled with small brown dots. Firm coarse texture, mildly sweet, aromatic, tender and very juicy. Keeps until New Year's. Large upright-spreading vigorous productive tree with small deep-green leaves. Z5. ❄

1380 Tsu Li, $15.00

Stone Fruits

Prunus spp. are widely cultivated around the world and adaptable to most of New England. Not highly particular as to soils. **Clingstone** means the fruit's flesh clings to the pit (or stone) and a **freestone** pit drops away from the flesh.

Apricots

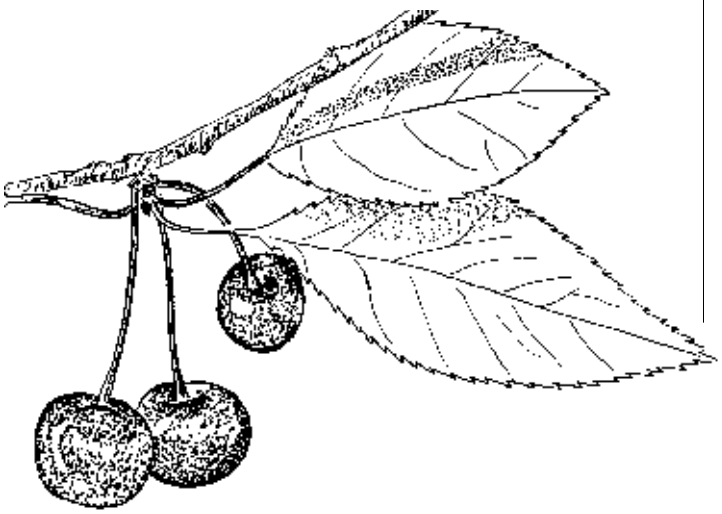
P. armeniaca For many years we have not been entirely happy with the commercially available apricot varieties and so, with the assistance of growers from around the country, we have begun a trial program here in Maine. We have a modest number of apricots for sale this year. Write to us for details or special orders, or come to the sale in May.

Pie Cherries

P. cerasus are called "sour," but they're delicious enough to eat right off the tree. Often producing crops in 3rd or 4th year, they're easier to grow than sweet cherries, and significantly hardier. They fruit in early to midsummer and don't mind heavy soil. They are generally divided into two groups: Morello types have dark red spherical fruit, dark juice and relatively small compact trees. Montmorency (or Amarelle) types have light red slightly flattened fruit, clear juice and medium-sized somewhat open trees. **Pie cherries do not require another variety for pollination**. Plant 15-20' apart. (3½-6' trees)

Evans Mid-Late Summer. Unknown parentage. Edmonton, Alberta, Canada. Rescued from obscurity in 1976 by Dr. Ieuan Evans for whom it was named. Thought to have been brought to Alberta by early settlers from Minnesota. Known in the Edmonton area at least back to 1923 but only recently gaining widespread attention through the efforts of Dr. Evans and, more recently, Bill MacKentley of St. Lawrence Nurseries who renamed it **Bali**. Currently the best-selling fruit tree on the Canadian prairie. Incredibly hardy, possibly even to Zone 2. Large—even huge—crops of English Morello-type fruit virtually every year. Excellent eating, jams, jellies, pies, dark red juice and wine. Tolerant of a wide range of soils, although light fertile soils are preferred. Naturally dwarf tree is self-pollinating. Z3.

1567 Evans, $17.00



Meteor Summer. MN 66 (Montmorency x Vladimir). U Minn, 1952. Considered superior to Montmorency. Very good eating right off the tree. Once again this year, I feel like a cedar waxwing, scampering up the Meteor tree and engaging in a feeding frenzy. I recommend you try it. Also excellent for pies, canning and freezing. This year we pitted and dried most of our crop and are extremely pleased with the results. Bright scarlet-red roundish-oval fruit. Clear bright yellow flesh and clear juice. Mildly acid flavor. Ripens after Northstar: mid-July in Central Maine. Reaches 12-16'. Z3. ❄

1575 Meteor, $15.00

Montmorency Summer. Seedling of Cerise Hative or Cerise Commune. Montmorency Valley, France, before 1600. Introduced to the U.S. about 1830. The most famous of all pie cherries. Not widely grown in Europe or Russia but long the standard of excellence in the U.S. Firm-fleshed bright red fruit makes a clear light pink juice. Although generally considered not as hardy as our other offerings, friends are growing and fruiting it quite succeessfully in northern Aroostook County, so it is hardy. Vigorous productive medium-sized upright-spreading tree tolerates a variety of soils. Parent of the fine variety Meteor. Z3-4. ❄

1580 Montmorency, $15.00

Northstar Summer. MN 58 (English Morello x Serbian Pie #1). U Minn, 1950. Morello-type cherry can be eaten fresh when ripe. Large roundish heart-shaped fruit with a small stone. Dark glistening mahogany-red skin. Dark red meaty tender juicy flesh has pleasantly acid flavor. Very productive. A natural dwarf reaching 9-10'. Resistant to brown rot and cracking. Z3. ❄

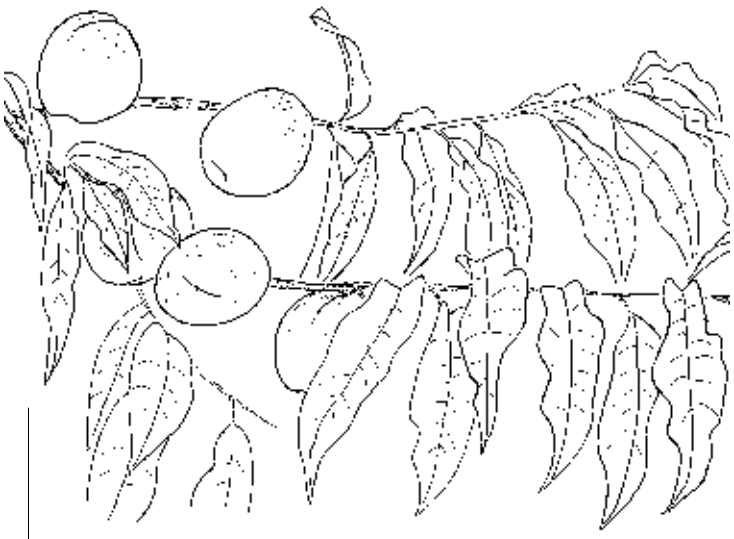
1590 Northstar, $15.00

Sweet Cherries

P. avium are generally not hardy in Maine. Most grow into very large trees. We are currently testing some of the hardiest varieties and hope to have more of them available in upcoming years.

Stella Mid-summer. 2C-27-19 (Lambert x John Innes Sdlg. 2420.) Canadian Dept of Ag Research Stn, Summerland, British Columbia, 1968. The first hardy good-quality self-fertile sweet cherry. Large heart-shaped black-skinned fruit has juicy medium-firm black flesh. May be a disappointment to sweet cherry aficionados from the Northwest but could be like a dream come true for orchardists living in more tropical locales of Maine. Fruit buds are relatively tender. Upright spreading vigorous productive tree will grow to 25-30 ft. Self-pollinating. Z5. ❄

1592 Stella Sweet Cherry, $15.00



Peaches

P. persica Although many people will tell you not to bother growing peaches in Maine, if you've been repeatedly saddened by the poor quality available in the supermarket, what's there to lose? Jamie Greager, our lilac grower, has been growing excellent Red Havens a few miles from my farm for years—in Zone 4. Many other trees in northern New England are also producing large crops. While these are certainly not like what you'd get if you went to Georgia, they still taste awfully good. They bear young and so heavily that they may break branches if unthinned or unsupported. Peaches are usually unaffected by pests or diseases in northern areas. The trees may also die unexpectedly at any age. There are no truly hardy peach cultivars, although Reliance is considered the hardiest. **Peach trees do not need a second variety for pollination**. Plant 15-20' apart. (3½-6' trees)

Belle of Georgia Summer. Seedling of Chinese Cling. Marshallville, GA, about 1870. Old-time favorite and surprisingly hardy in spite of its origin. Large beautiful roundish-oval cream-colored fruit with a bright red blush has thin tender skin. Flesh is white, tinged with red, firm, melting, juicy, very high quality. Freestone. Very good fresh eating, cooking and canning. Large vigorous productive tree. Resistant to bacterial spot. Slight resistance to brown spot. Not hardy in much of Maine! Z5.

1603 Belle of Georgia, $15.00

Red Haven Summer. Halehaven x Kalhaven. MI Ag Exp Station, 1940. Considered hardy, but not as hardy as Reliance. Medium-sized round fruit with beautiful red and golden-yellow skin and sweet firm fine-textured yellow flesh. Non-browning. Excellent for eating, freezing, canning, shipping. Probably the best-flavored peach we offer; also the world's most widely planted freestone peach. Hardy buds; vigorous highly productive disease-resistant spreading trees are tolerant to bacterial spot. Z5.

1645 Red Haven, $15.00

Reliance Summer. Open-pollinated seedling of Minn PHO 4559 x Meredith. NH Ag Exp Station, 1964. Considered the hardiest peach. Medium-sized, roundish, freestone. Rather dull red blush over greenish yellow. Bright yellow flesh, soft and juicy. Flavor usually considered fair, but those who grow it in Maine love it. Often produces large crops. Bears at an early age. Z4-5.

1650 Reliance, $15.00

Hardired Nectarine Summer. Lexington x NJN 32. Harrow Station, Ontario, 1974. Nectarines are peaches with smooth skins. Mottled red-orange 2" fruit with a deep purple blush, looks almost like a plum. Medium-thin tasty skin. Aromatic school bus-yellow flesh. Juicy melting texture with absolutely delicious flavor, somewhat tart and reminiscent of mangoes. Last fall, Steve Bellavia of nearby Albion wrote, "They are very sweet and seem just as good as the nectarines we used to raise in our backyard in California." I don't recall eating nectarines in California, but I have eaten Hardired and I agree: they are excellent. Freestone. Self-pollinating. Resistant to brown rot and bacterial spot. Z4-5.

1670 Hardired Nectarine, $15.00

Hybrid Plums

Prunus spp., are extremely hardy crosses between various Asian plums and American species for hardiness. I'm pleased to learn that Wisconsin horticulturalist Brian Smith is currently involved in a hybrid-plum breeding program in River Falls. We hope to be offering some of his selections in upcoming years. For too long this magnificent fruit has been almost completely neglected.

All these require a second variety for pollination planted close enough so that their branches actually interweave as the trees mature, about 4-10' apart. While Toka, South Dakota and Kaga are often recommended as the best pollinators, I would suggest any pair as a good match. Three or more different varieties is even better. Bloom times similar for all varieties. Not susceptible to black knot. (3½-6' trees)

Elephant Heart Late summer. Japanese type (*P. salicina*) of unknown parentage. Selected by Luther Burbank in about 1920. Introduced by Stark Brothers Nursery, Louisiana, MO, 1929. Very large high-quality dessert fruit, marbled and blotched with purple and green. Purplish-red flesh is meaty, perfumy and very sweet. For pollination, we recommend planting near other Japanese types or any of the hybrids. The more varieties nearby, the better the chance of getting a good crop. Broad spreading tree. Z4. ❄

1683 Elephant Heart, $15.00

Gracious Late Summer. Mandan 41-15 [(open-pollinated seedling of Emerald (*P. sal.* Burbank x *P. americana* Brittlewood) probably x Red Wing (*P. sal.* Burbank x *P. a. mollis* Wolf)]. Northern Great Plains Field Station, Mandan, ND, 1957. Oval-to-roundish yellow-orange fruit with coral-red mottling. Yellow-orange firm juicy sweet flesh. Freestone. Although there are still many plums I've yet to taste, this one rates with Purple Heart as one of my two favorites. A supremely excellent fresh eating plum. Even with a heavy crop, it's hard to have any left over for its excellent sauce or jam. Upright spreading tree. Rare. Z3. ❄

1685 Gracious, $15.00

Kaga Mid-Late Summer. *P. americana* seedling x *P. simonii* (Chinese apricot plum). N.E. Hansen introduction. SD St Ag Exp Stn, 1909. Small 1" purple-black fruit. Good for eating out of hand when they're dead ripe. Exceptional in jams and jellies due to the meatiness of the black flesh. This is not one of those plums that dissolves and dribbles down your chin. Excellent pollinator for hybrid plums. The most profuse bloomer in Mark Fulford's plum collection, coming right in the middle of plum season. Reliably bearing dense bushy naturally dwarf tree grows only to about 10'. Kaga is Sioux for "pitch a tent." Z3. ❄

1693 Kaga, $15.00

Kahinta Mid-Late Summer. Luther Burbank's *P. sal.* Apple x *P. a.* Terry. SD, 1912. Introduced by the great plant breeder NE Hansen using the same parentage as another excellent plum, Waneta, and similar to it. Large 1½" roundish slightly pointed fruit, flattened at the stem end. Tart brilliant red-purple skin and tart but quite flavorful translucent yellow-orange flesh. Easy to peel; peeled fruit looks like a peeled tangerine. Or you can bite a small hole in the skin and suck out the juicy flesh. Clingstone. Very good for fresh eating or canning. Medium-sized spreading tree. Kept pruned, my 20-year-old tree remains about 8 feet tall. Bears more reliably than most other varieties in my orchard. Kahinta is the Sioux word for "sweep." Rare. Z3. ❄

1695 Kahinta, $15.00

Purple Heart Late Summer. Unknown parentage (possibly *P. cerasifera* x *P. sal.*) from Enfield, NH. Brought to another great plant breeder, Professor EM Meader, by a man who passed away before Meader could ascertain its origin. Becomes a favorite of anyone who grows it. Small to medium-sized fruit with red-purple skin and flesh and a delicate but full sweet flavor. Without a doubt, the most delicious plum I grow. Flowers are able to withstand spring frosts. Productive and healthy tree. Shows tip damage following colder winters. Not quite as hardy as other hybrids. Friend, horticultural researcher and writer Lon Rombough suggests it may have *P. cerasifera* in its parentage which would explain its susceptibility to black knot, unlike any other hybrid plum I know. Likely self-pollinating. Do not rely on Purple Heart to pollinate other plums. Z4. ❄

1725 Purple Heart, $15.00

South Dakota Late Summer. SD 27. (Unkown parentage, probably *P. a.* or *P. sal.* x *P. a.*) U Minn Ag Exp Sta, 1949. Developed by NE Hansen sometime before 1907, and taken by one of his students to the breeding program in Minnesota where it was later introduced. Small to medium-sized fruit has tough yellow skin with bright mottled red blush. Medium-firm yellow flesh is meaty, juicy, sweet. Freestone. They're easy to eat and quite good; I love them. Although no one seems fully to understand hybrid plum pollination, my current hunch is that the best pollinating varieties have viable male pollen for long periods of time, thus maximizing the chance that adjacent plums will be pollinated as *their* pistils become receptive. With its long and profuse bloom, South Dakota is considered one of the best of the hybrid plum pollinators and should be considered for every collection. Vigorous and consistently productive tree. Z3. ❄

1733 South Dakota, $15.00

Superior Late Summer. MN 194 [*P. s.* 'Burbank' x 'Kaga' (*P. a.* x *P. sim.*)]. U Minn, 1933. Large conical dark red plum with a heavy bloom. Firm yellow flesh is smooth textured, juicy, clingstone. Frank Foltz, plum tester and owner of Northwinds Nursery in Princeton, MN, wrote to me, "This is the closest thing to a peach that can be grown in our harsh climate. Very large, sweet, extremely juicy and of the best quality for fresh eating." Bears early, in 3-4 years. Z3. ❄

1735 Superior, $15.00

Tecumseh Midsummer. Shiro x *P. hortulana* Surprise. SD Stn, 1923. Not well known, and rarely sold anywhere, but considered by some enthusiasts to be one of NE Hansen's best introductions. David Bedford of the Minnesota Horticultural Research Station mentioned it in a recent phone conversation as one he particularly liked. Excellent fresh eating. Round-ovate bright red fruit with a bluish bloom. Firm juicy subacid yellow flesh. Reliable and productive tree has unusual greyish-brown bark. Named in honor of Shawnee Chief Tecumseh who refused to sign the Treaty of Greenville in 1795 which would have given up his tribe's lands. Z3. ❄

1740 Tecumseh, $15.00

Toka Late Summer. *P. a.* x *P. sim*. NE Hansen intro, SD Exp Sta, 1911. Small reddish-yellow apricot-colored fruit with unique spicy flavor. Pomologist Ed Fackler recently noted Toka as being the best-tasting plum he grows in his Indiana orchard. Freestone. Extremely vigorous tree blooms heavily every year. I've kept mine at a manageable height by fairly heavy annual pruning. Considered one of the best pollinators for other hybrid plums. Z3. ❄

1745 Toka, $15.00

Underwood Midsummer. MN 91 (Shiro x *P. a.* Wyant). U Minn, 1920. Medium to large 2" fruit. Yellow skin with dull red overcoat. Firm sweet juicy golden-yellow freestone flesh, good for eating and cooking. Northern Maine grower Steve Miller considers it to be one of his most reliable bearers. Long picking season. Vigorous large spreading tree blooms early. Z3-4. ❄

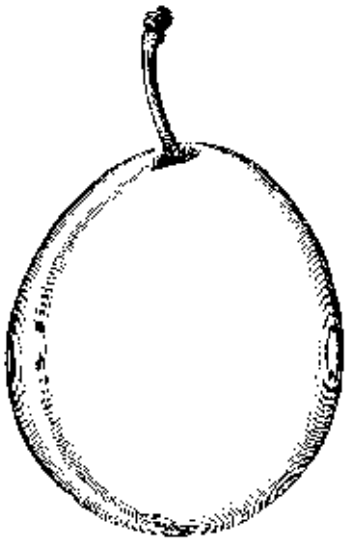
1750 Underwood, $15.00

Waneta Midsummer. *P. sal.* Apple x *P. a.* Terry. NE Hansen intro, SD Exp Sta, 1913. Released one year after Kahinta, and with the same parentage, when hybrid plums were an important and commercially viable crop. Named after a Yanktonai youth who won fame in the War of 1812 and later became a great chief. Large 1½- 2" reddish-maroon fruit, slightly less pointed than Kahinta. Sweet tender translucent orange flesh is very juicy but not dripping. Medium-thick skin, tart and easy to peel. Delicious overall taste. Hansen said of Waneta: "My belief is that in this variety I have combined the best points of the native and the Japanese plum. It is probably the largest [fruit] of over 10,000 seedlings." Early-blooming healthy open spreading tree bears reliably in our orchard. Z3. ❄

1755 Waneta, $15.00

European plums

P. domestica Although also delicious fresh, this is the plum that is grown commercially for prunes. A true prune is a plum that can be dried without the pit fermenting. European plums produce smaller fruit and are generally not as hardy as the hybrid plums, though they can handle heavier soils and are less prone to brown rot. Unlike hybrids, they are prone to the fungal disease black knot, which looks like black chewing gum and appears on branches. While not necessarily fatal, it must be kept in check by removing and destroying infected branches. Trees grow upright and are usually trained to a central leader. Although **European plums are self-pollinating**, planting two different varieties will improve pollination. (3½-6' trees)



Mount Royal Late Summer. Chance seedling, Outremont, Québec, before 1903. Popular plum in Québec and the northern U.S. for many years, also called **Mont-Royal**. Bears abundant annual crops of medium-sized roundish dark purple fruit, often considered the sweetest of the European plums. The flesh is greenish-yellow, juicy and firm. Use fresh, dried, frozen, canned and in preserves. Medium-sized tree is open, requires only moderate pruning. Z4.

1780 Mount Royal, $16.00

Stanley Late Summer. *P. d.* Agen x *P. d.* Grand Duke. NY Station, 1926. Most popular European prune plum in America. Excellent for cooking, eating, canning and drying. Medium-to-large fruits with dark blue skin. Green-yellow firm but tender juicy fine-grained sweet flesh. Reliably bearing fast-growing adaptable medium-to-large funnel-shaped tree produces healthy vigorous annual crops. Z4.

1820 Stanley, $16.00

Small Fruits & Berries

Lowbush Blueberry *Vaccinium angustifolium* 6x24" Blueberry growers in Maine usually don't bother with the "lowbush" distinction; to them, this is the only true blueberry. Though both plants and berries are diminutive, the taste is supreme. Lustrous blue-green foliage in summer followed by an amazing combination of bronze, orange and scarlet in the fall. Grown in Maine long before Europeans came Downeast, where thousands of acres are now under production. Commercial blueberry land is burned in the spring to clear out the weed competition. A crop will then follow a year later. To speed harvesting, berries are usually raked rather than hand-picked. I do either, depending on my mood and the availability of my rake. You don't have to burn and rake to have a small-scale planting. Woodsy dry poor acid soil is a prerequisite. If you've got White Pine, you're probably all set. Plant 12" apart each way and cultivate as a ground cover. Generally self-pollinating; other blueberries nearby will help ensure pollination. Full sun is best for maximum fruit production. Keep your patch weed free. Native to northeastern U.S. Z2. ❄ (2 year transplants)

1900 Lowbush Blueberry, $7.00

Highbush Blueberries *V. corymbosum* are native to North America. While usually associated with New Jersey and Michigan, many of Maine's lakes are lined with massive stands of highbush blueberries. Grazing the shore requires only time and a suitable vessel; I prefer kayak or canoe. The beautiful vigorous shrubs are extremely easy to grow at home, productive and reliable, with few disease or insect problems. By planting several varieties, you can harvest berries from early July through most of August. They like moist but moderately well-drained light acid soil (pH 4.8-5.2) and respond well to nitrogen and mulching with cardboard, bark, saw dust, or even slab wood. They may need net protection from birds. One of the best arrangements I've seen is John Meader's netted "house" in Buckfield. He has about 40 bushes growing under a framework made of posts and 2x4s and completely covered in netting.

Two varieties are required, three or more recommended, for pollination. Plant 3-6' apart in rows 8-10' apart. Plants usually start bearing sparsely the second summer you have them in the ground. For optimal results, some people remove flowers the first (and even second) year while the plants get established. (18-30" 2-year-old plants)

Bluecrop Early-Midseason. GM 37 (Jersey x Pioneer) x CU-5 (Stanley x June), USDA, NJ, 1952. Medium-sized firm subacid fruit; very light blue berries of high dessert quality, resistant to cracking. Medium-large open clusters. Vigorous, upright 4-6' consistently productive bush. Ripens over a long season. May not be perfectly ripe when they first turn blue. Give them a few more days to reach full flavor before picking. Pruning will help maintain fruit size. Z4.

1920 Bluecrop, $7.00

Blueray Mid. GM 37 x CU-5, USDA, NJ, 1955. Large firm dark blue berries of high dessert quality in small clusters. Very vigorous 4-6' bush with upright spreading habit. Considered the leading "you-pick" variety; consistently productive. Z4.

1925 Blueray, $7.00

Chippewa Early-Mid. MN 393 [B18A (G65 x Ashworth) x US3 (Dixi x Michigan Lowbush No. 1)] U Minn, 1996. Highbush x lowbush type, about 4' at muturity. Very light blue medium-to-large fruit is held in compact clusters of 10, making the berries easy to pick. Flavor is mild and sweet, much like many of the best wild strains. Less acidic than Northblue. Erect bush is quite fully branched and very attractive. Foliage can be a lustrous distinctive jade green. Z3. ❄

1930 Chippewa, $8.00

Duke Early. G-100 (Ivanhoe x Earliblue) x 192-8 (E-30 x E-11), USDA, NJ, 1987. Recent release considered a big improvement over Earliblue, the standard early cultivar. Firm medium-sized light blue fruit with mild sweet flavor, excellent for fresh eating or processing. Vigorous upright high-yielding 4-6' bush. Long stems and loose clusters. Z4.

1935 Duke, $7.00

Northblue Mid. MN 360 (B10xUS3), U Minn, 1983. Highbush x lowbush type. Low spreading bush, grows only 20-30" high, yields 3-4 quarts per bush. Large attractive dark blue fruit. Best for cooking and freezing. Z3. ❄

1963 Northblue, $8.00

Northland Early. Berkeley x 19-H, Mich St U, 1967. Early highbush x lowbush type bears long loose clusters of medium-small dark blue berries with excellent wild flavor. Very vigorous and productive, 3' moderately spreading bush has limber branches which tolerate snow well. Good landscape, bird forage and dessert qualities. Z3.

Patriot Early-Mid. US3 (Dixi x Michigan LB-1) x Earliblue (Stanley x Weymouth). U Maine, 1976. Partial lowbush parentage. Adaptable to many soil types. Large firm berries with good color and excellent flavor. Upright open spreading 4' bush. Tolerant or resistant to some strains of soil fungus. Z4.

1975 Patriot, $7.00

Grapes *Vitis* spp. Grapes are easy to grow and can bear plentifully even in northern New England. Our vines bear consistently and heavily almost every year. You can eat seeded varieties right off the vine if you don't mind "grape nuts."

Most grape varieties are bred from a combination of different species, *V. labrusca* and *V. vinifera* being the most important. *Labrusca* is native to the eastern U.S., has a wild tart musky (or foxy) flavor, and is hardy and disease-resistant. Concord is the best-known of the Labruscas. *Vinifera*, native to Europe, is extremely high quality and the most important wine grape in the world, but is not hardy and is prone to disease. Riesling and Chardonnay are the two hardiest pure Vinifera grapes.

Grapes require annual pruning and a trellis or arbor, though some friends let them grow right up into trees. They prefer light sandy or well-drained soils. Full sun is especially important. They respond to nitrogen, and straw or hay mulch. Most do not require a second cultivar for pollination. Plant grapes about 8-12' apart.

In central Maine, "very early" grapes begin ripening in mid-August, while "midseason" ripen mid-September. Late-season Concord, a standard elsewhere, does not ripen in many northern areas.

Grapes rated for Zone 5 can be grown in Zones 3 and 4. To prevent winter injury, remove the vine from the trellis in fall, lay it on the ground, and bury with just enough soil to cover. This task is neither difficult nor time-consuming, and does work. (1-2 yr well-rooted vines)

Beta Midseason. *V. riparia* x Concord. Originated by Louis Suelter (pronounced *Sool*-ter) in Minn, 1881. Beta was named after his wife and is pronounced *Bett*-uh not *Bay*-tuh. Old standby, excellent for juice, jelly and jam. Good eating off the vine when completely ripe. Medium-sized black berries in moderately compact to loose clusters, ranging in size halfway between Delaware and Concord. Early to bloom, early to ripen. Vigorous healthy productive vines, extremely hardy. Z3.

2010 Beta, $7.00

Bluebell Mid. MN 158 (Beta x unknown). Developed by JM Dorsey, U Minn, 1944. This grape does everything well. Extremely hardy (-30˚F) labrusca type ripens 2-3 weeks earlier than Concord. Delicious sweet flavor makes them excellent for fresh eating, jelly and juice. Clusters of medium-sized dark berries with a heavy blue bloom. Strong, productive, vigorous—but not rampant—vine. Immune to most or all fungal diseases. Rare. Z4.

2020 Bluebell, $7.00

Concord Seedless Mid. Bud sport of Concord. Good seedless grape for the homeowner. Will ripen in many areas where Concord will not, with a sweeter flavor. Light producer of small berries in small clusters. May be the hardiest seedless grape. Mine shows no winter damage and I leave it up on the arbor all winter. Good disease resistance. Z4.

2045 Concord Seedless, $7.00

Frontenac Mid-late. MN1047 *V. riparia* 'RIP 89' x Landot 4511. U Minn, about 1995. An excellent new hardy red wine grape from the University of Minnesota's grape breeding project. No labrusca or riparia flavor. Wine has been winning acclaim throughout the Upper Midwest and has even been mistaken for Pinot Noir by reputable wine judges. Very large loose clusters of small berries. Vigorous very productive largely disease-free vines. In the Minnesota Grape Growers Association's *Notes from the North*, John Marshall writes, "Though the sugar may rise to impressive levels early in September, the grapes are not nearly ripe. Ignore the sugar levels and wait until September 20th. The acid will drop and the wonderful black cherry flavors that will make this grape famous will multiply." Maine grape researcher and tester Jerry Rodman adds, "Frontenac has made some good wines, but is very high in acid and is probably best for areas with high heat accumulation (which helps to lower its acid)." Z4.

2075 Frontenac, $7.00

Kay Gray Early. ES217 (MN78 x Golden Muscat) x open-pollinated, probably by Onaka. Elmer Swenson introduction, Osceola, WI, 1981. Medium-sized golden-white slip-skin berries in medium-sized compact clusters. Mild sweet fruity flavor. Best for dessert or juice, makes acceptable white wine. Hangs well after ripening. Very good to excellent disease resistance. Vigorous vine, moderately productive. Very hardy. Z3.

2090 Kay Gray, $7.00

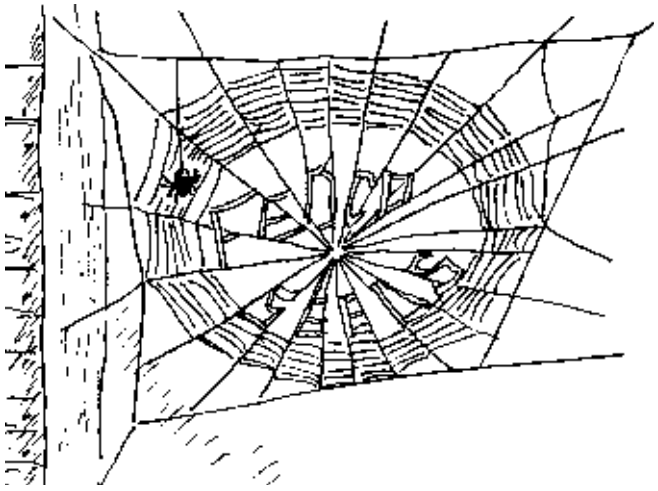
King of the North Mid. *V. riparia* x Concord-type. Madison, WI. Finally a "new" grape for those in the coldest locations. More accurately, the rediscovery of a local heirloom grape from an accidental cross that was picked up and named by Jung's Nursery many years ago, but never received much attention until recently when it has created excitement among northern grape growers. Hardier and better tasting dark-skinned table grape than Beta, light red sweet tasty juice, excellent labrusca-type wine. Ripens slightly later than Bluebell. Z3.

2096 King of the North, $7.00

ON THE WEB

Fedco Trees can be found on the Web at **www.fedcoseeds.com**. Visit us throughout the year for event listings, planting instructions and links to other plant Web sites. During pre-order season you'll find current information on the availability of catalog items.

You are also welcome to email us at **trees@fedcoseeds.com**.



Prairie Star Mid. ES 3-24-7 (ES 2-7-13 x ES 2-8-1) Elmer Swenson introduction, 1984. Blocky long slightly loose clusters of medium-sized white fruit. Excellent sugar and acidity for winemaking. Makes a nice classy wine with no foxy flavor. Tom Plocher and Bob Parke reported in *Notes from the North* that the wine has "a fullness in the mouth and finish that is uncommon among our hybrids....In some years it develops a delicate floral nose that allows it to stand as a single variety wine. In most years however, Prairie Star is an ideal blending component to add body and finish to thin white wines." A favorite of Jerry Rodman who has tested dozens of grape varieties at his Litchfield, ME, vineyard. Prefers heavier fertile soils. Disease-resistant and very hardy. Z3-4.

2120 Prairie Star, $7.00

Reliance Seedless Very early. Arkansas 1163 (Ontario x Suffolk Red). Arkansas Stn, 1982. Probably the highest-quality seedless grape for the North. Large loose clusters of tender melting sweet pinkish-red fruit with a strawberry-like flavor. Fresh eating or juice. Stores well in root cellar for 1-2 months. Seems perfectly hardy in our Zone 4 trials. Lay vines down for the winter in coldest areas. Extraordinarily vigorous disease-resistant vines. Z4–5.

2125 Reliance Seedless, $7.00

St. Croix Mid. ES 242 (ES 283 x ES 193) Swenson intro, Osceola, WI. Juicy low-acid medium-sized blue grapes in medium-sized bunches. High quality pale red juice and vinifera-type fruity dry red wine. Very popular as the primary variety in blended red wines produced by Minnesota's small but thriving wine industry. Disease resistant. Extremely hardy. Z3–4.

2135 St. Croix, $7.00

Worden Mid. *V. labrusca.* Concord seedling. Minetto, NY, 1863. For those who have tried to grow Concords in the North and got frustrated when the frost ruined the fruit. Similar to Concord in many respects, but ripens two to three weeks earlier. Juicy sweet mildly foxy flavor, with fresh eating quality superior to Concord. Large long broad tapering clusters of medium-sized round dark purplish blue-black berries with a heavy bloom. Thin tender skin. Greenish translucent flesh. Healthy hardy vigorous productive vines. Z4.

2190 Worden, $7.00

Raspberries *Rubus* spp.

The ruby red and golden yellow cultivated raspberries growing in the garden are native to North America, Europe and Asia. They are usually identified as *R. ideaus* or *R. ideaus* var *stirgosus.* Hyland and Steinmetz's *Trees and Other Woody Plants of Maine* lists 53 different *Rubus* species and subspecies.

Everbearing types bear on first-year canes or primocanes. Cut all canes to the ground in late fall after leaves drop, or in early spring; first-year canes will fruit in late summer. We don't offer Heritage, a popular producer of high-quality fruit, because it ripens too late for growers in Zone 4 and cold areas of Zone 5.

Summer-bearing cultivars bear on second-year canes or floricanes. Remove the spent fruiting canes the following spring. Harvest leaves for medicinal use from first-year canes of summer-bearing varieties. A leaf and fruit vinegar is very high in minerals, and the leaf tea makes a great tonic for both uterus and prostate.

Grown in hills or rows, raspberries respond well to rich well-drained moderately acid (pH 5-6.5) soil and mulch. **A second variety is not needed for pollination**. Prior to planting, soak canes in Agri-gel, in the sidebar and also available in the Organic Growers Supply section of the Seed catalog. Plant 3' apart in rows 10' apart. (bare-root canes)

August Red Late. Developed by EM Meader, UNH. An everbearing variety that is the one hope when no other raspberry will survive. Can be killed back to the snow line and will still bear heavily that summer. Medium-large crimson fruit has excellent flavor. Compact erect 3' bush bears earlier than other everbearers. Mow them down to the ground in late fall. They come back the next spring and produce in midsummer, about August 10th in central Maine. Z3. ❄

2220 August Red, bundle of 10 for $24.00

Boyne Early-Mid. Chief x Indian Summer. Morden Res Stn, Manitoba, 1960. Round-conic medium-sized berries with an intense deep dark, almost purple, color. Strong aromatic tart raspberry flavor and a perfect medium-soft texture. It's easy to eat a lot of them in a very short time. Grower John Meader spoke glowingly of Boyne during our recent visit to his raspberry trials. He called it "an excellent, excellent variety. Boyne is the one to beat if you're going to introduce a new raspberry." Extremely hardy. Shows no tip damage in Zone 3. Leaves tend to curl down over the fruit making it more difficult to pick if you're in a hurry. Yields well, but less productive than Killarney. Still, according to friends who make honey and fruit butters, there is no better raspberry for processing. No disease and very little pest damage. Z3.

2240 Boyne Red, bundle of 10 for $15.00
2241 Boyne Red, bundle of 25 for $25.00

Killarney Early. Chief x Indian Summer. Morden Sta, Manitoba, 1961. Medium-to-large round firm red fruit has very good flavor and excellent quality over a long season. Sturdy 4' canes require no support. Extremely hardy summer-bearing cultivar. Yields consistently and even tends to regenerate flower buds if there is pest pressure. Z3.

2300 Killarney, bundle of 10 for $15.00
2301 Killarney, bundle of 25 for $25.00

Kiwigold Everbearing Late. Sport of Heritage. Murrinsville, New Zealand. Customers frequently ask for a yellow raspberry and we continue to look. Early season varieties are not easy to find. Kiwigold comes to us with the highest recommendation, but with a ripening time similar to Heritage, it will be too late to avoid the frosts in colder areas. Yellow berries with a developing blush when over-ripe. Good flavor, size and color. Recommended for areas south of Portland or for those with a spirit of adventure. Z5.

2308 Kiwigold Everbearing, bundle of 10 for $15.00

Royalty Purple Mid. (Cumberland x Newburgh) x (Newburgh x Indian Summer). NY Station, 1982. Distinctly flavored cohesive fairly firm large berries make outstanding jam and jelly, and even better fresh eating. Their flavor is different from the red raspberries, with a hint of black-raspberry. Extremely robust non-suckering plants are very productive and open-formed; the berries are right in your face and easy to pick. Ready to harvest when they are deep purple, somewhat later than the reds. Summer-bearing. Usually considered Zone 4 but is proving itself into Zone 3 with occasional slight tip dieback. Z3-4.

2340 Royalty Purple, bundle of 10 for $28.00

Taylor Mid. Newman x Lloyd George. NY Station, 1935. Often considered the best-flavored raspberry, as well as one of the hardiest, though suffers minor frost damage in Zone 3. Large pinkish-red fruits are firm, long, conic. Vigorous highly productive sturdy canes can grow up to 9', though usually need no support. Summer-bearer adaptable for "you-pick" and commercial use. In some places virus has caused canes to die out after a few years. Z4.

2360 Taylor, bundle of 10 for $15.00
2361 Taylor, bundle of 25 for $25.00

Strawberries *Fragaria* x *Ananassa*

A highlight this past summer was picking Sparkles on the way to the chicken coop for morning chores. Is that not heaven? Although no one knows where the common name *strawberry* originated, unsubstantiated speculation has it that it comes from the practice of putting straw down between the rows for pickers to sit on while they sample the fruit and catch up on each other's lives. Technically not berries or fruits at all, strawberries are enlarged fleshy receptacles. The fruits are those tiny embedded "seeds" (they're not seeds, but achenes which have seeds in them). Modern strawberries, developed about 1830, are a hybrid of *F. chiloensis* (native of Chile) and *F. virginiana* (native of North America).

Strawberries require full sun, good drainage and a thick mulch. 50 plants will plant from 150-250'. (virus-free bare-root stock)

For Alpine Strawberry, *F. vesca*, see #**6561**.

Earliglow Early. MdUS 3861 (Fairland x Midland) x (Redglow x Surecrop). Medium-sized berries. Best for fresh eating and freezing. Excellent flavor for an early berry. Called the best flavored of all varieties by Barbara Bowling in *The Berry Growers Companion.* Also a favorite of local strawberry grower Shaun Keenan at Sand Hill Farm. Resistant to red stele and verticillium wilt. Z3.

2410 Earliglow, bundle of 50 for $10.00

Jewel Mid-Late. NY 1324 [(Senga Sengana x NY E-58) x Holiday] NY Station, 1985. There's no better spot to do Strawberry trials than Sand Hill Farm in Somerville, just a couple of miles from home. This summer I asked Shaun which variety we should add to our list. His answer was Jewel. He even went so far as to say it tasted almost as good as Sparkle. Although I don't think I'd go quite that far, I was very impressed with the berry. Large bright red glossy fruit is firm, sweet and slightly aromatic. Unlike Sparkle, Earliglow and many other varieties, it keeps its size all season. Extremely popular with commercial growers. Good freezing quality. Low incidence of fruit rots and foliar diseases. Not resistant to verticillium or red stele. Z4.

2420 Jewel, bundle of 50 for $10.00

Northeaster Early. MdUS 4787 (MdUS 4380 x Holiday). USDA, 1996. Very large firm fruit with strong aromatic flavor is productive and hardy. Recent introduction that shows excellent promise throughout much of New England. Has even done well in our trials in Aroostook County. Ripens about the same time as Earliglow. Recommended both for homeowners and for large plantings. Resistant to soil diseases and tolerant to foliage disease. Very hardy. Z3.

2424 Northeaster, bundle of 50 for $10.00

Sparkle Mid-Late. Fairfax x Aberdeen. NJ Ag Exp Stn, 1943. I suspect if Sparkle were an early variety, no one would bother eating any other strawberry. Fortunately, it ripens late so you can enjoy other varieties before being reminded once again how perfect Sparkles are. To me, they possess a flavor that can only be described as the essence of strawberry. Soft berries make delicious fresh eating and are also excellent for jams and freezing. First fruit set is large; the rest are small. Resistant to most strains of red stele. Blooms late and is rarely affected by spring frost. Z3.

2430 Sparkle, bundle of 50 for $10.00

Tristar EB 18 x MdUS 4258, USDA, MD, 1981. Everbearing "dayneutral" strawberry sets flower buds regardless of day length, fruiting all summer and into fall. Remove flower buds for the first six weeks after planting and you'll still get a crop the first year. Medium-sized firm deep-red berries of excellent quality and flavor. Resistant to red stele and verticillium wilt. Z4.

2442 Tristar, bundle of 50 for $15.00

Agri-gel A hydrogel formulation which absorbs and holds water. The swollen crystals adhere to plant roots, reducing transplant shock. Safe, non-toxic, easy to use. Useful for garden seedlings as well as woody plants. Highly recommended for raspberries and conifers. Half-ounce packet mixed with one to three gallons of water will treat up to 100 cane plants, or 50 trees and shrubs. 1/2 oz.

7510 Agri-gel, $2.00

More Edibles

***Actinidia arguta* Hardy Kiwi** Productive climbing vine that produces delicious grape-sized kiwi fruits in late summer. Unlike supermarket kiwis, the skin is smooth and edible. Easy to grow in rich well-drained soils, either light or heavy. Plant them about 10' apart. A sturdy arbor or trellis is essential. Will begin producing in 5-9 years. No significant pest or disease problems. Some growers have been frustrated with vines that have proven unproductive or not hardy. After consulting several of Maine's long-time growers, we collected cuttings from fruiting combinations here in central Maine. We think you'll be pleased with our choices. We'll be offering more varieties in the years to come. More instructions in the Fedco planting guide. Both male and female plants required for fruit. One male will pollinate at least two females. Z4. (well-rooted 2-year-old transplants)

***A. a.* Ananasnaya** (female) Summer. I.V. Michurin introduction, USSR, 1972. May be a hybrid of *A. arguta* and *A. kolomikta*. Oval fruit, about 1 1/2" long. Dark green smooth skin. Light green juicy flesh with a pineapple scent and flavor. In fact, ananasnaya means "pineapple-like." Bears reliably. ❄

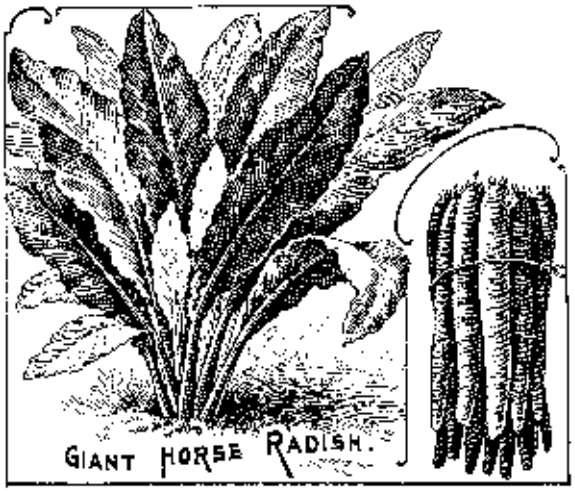
2444 Ananasnaya Female Kiwi, 13.00

***A. a.* Michigan State** (female) Summer. Michigan St Univ. Grower Tom Vigue calls the thumb-shaped, thumb-sized fruit, "sweet and most highly luscious." When I tasted the fruit at Tom's several years ago, I thought it was absolutely delicious. Not high yielding. ❄

2448 Michigan State Female Kiwi, 13.00

***A. a.* Cornell** (non-fruiting male) NY Ag Exp Stn, Geneva, NY. Very hardy reliable pollinator. Will pollinate either of the above female kiwis. Very vigorous grower. ❄

2452 Cornell Male Kiwi, 12.00



with large dock-like leaves savored for centuries for its culinary and medicinal uses. 'Big Top' is a newer strain with disease resistance. Deep taproot with numerous shallow runner roots. Plant it where you want it because you may never get it all out. Prefers rich soil. Leaves can be cooked as greens. Harvest roots in the fall. Plant with the slanted cut down and the flat side up. Native to northern Europe. Z3. (#1 roots)

2455 Horseradish, bundle of 5 for $5.50

***Asparagus officinalis* 'Jersey King' Asparagus** Early. Rutgers U. Although asparagus produces male and female plants, one in 500 includes both sex flowers on the same plant. Crossing these flowers produces all-male hybrids which are 2-3 times more productive than the open-pollinated types. They also have excellent tolerance to asparagus rust and fusarium crown rot. Jersey King produces high yields of large-diameter tender spears. Z4. (large-rooted 1-yr crowns)

2464 Asparagus Jersey King, bundle of 25 for $11.00

2465 Asparagus Jersey King, bundle of 50 for $18.00

***A. o.* 'Purple Passion' Asparagus** Early. Developed from the old Italian heirloom *Violetto di Albenga*. Brian Benson introduction. Very large deep purple stalk with a creamy white interior. Sweeter and less stringy than its green counterparts, meaning you can use more of the spear. Tender enough to eat raw in salads. Turns green when cooked. (large-rooted 1-yr crowns)

2477 Asparagus Purple Passion, bundle of 25 for $11.00

***Rheum rhabarbarum* 'MacDonald' Rhubarb** MacDonald College, Quebec. A perennial herb of the buckwheat family whose clumps of juicy acid leaf stalks have been a northern food staple every spring for thousands of years. Most famous these days for pies and wine, but also great for sauce, breads and juice. MacDonald has extremely vigorous productive upright large tender stalks, deep red inside and out. Requires annual feeding and rich well-drained soil. Plant with a bushel of well-rotted manure and compost, and sidedress with manure every spring. Leaves not edible. Native to Russia. Z3. (#1 crowns)

2482 MacDonald Rhubarb, bundle of 2 for $7.00

***Vaccinium macrocarpon* American Cranberry** This is the cranberry of delicious holiday sauces, bread and jelly. Dense low 2-12" lustrous evergreen ground cover, reddish purple in fall and loaded with 1/2" light yellow to orange to reddish maroon berries that color more after harvest. Handpick or rake like blueberries before hard frost. Use fresh or freeze, or store in a cool basement or root cellar for months. Berries a well-known cystitis remedy. Requires acidic soil, preferably cool, moist and high in organic matter, though will grow in dry locations. Often flooded for frost protection and convenience in commercial operations, but not necessary in home plots. Native to northeastern U.S. and Canada. 10 plants will fill a 5x5' bed. Z2. ❄ (well-rooted plants with 3-4 runners)

2496 American Cranberry, bundle of 10 for $15.00

Fruiting Shrubs and Trees

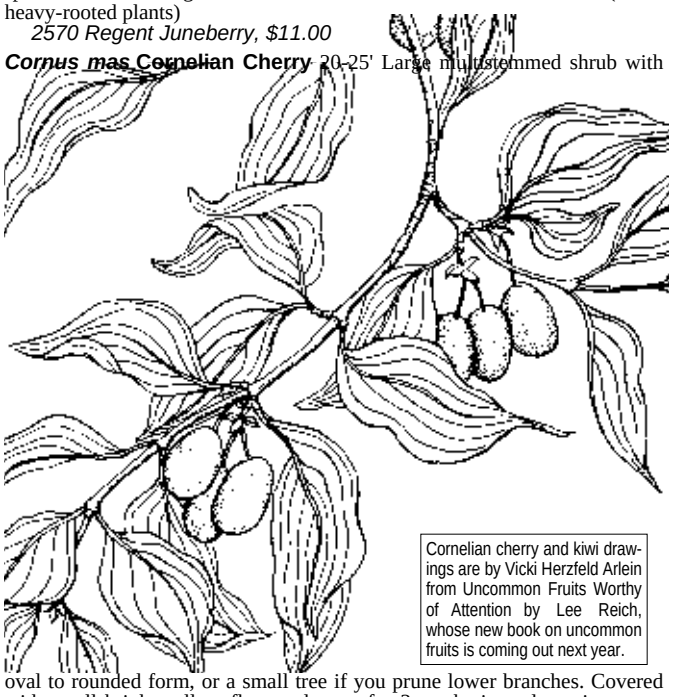
These additional fruit-bearing trees and shrubs make beautiful hedges, attract birds and other wildlife, and many produce quite edible fruit as well. **Plant more than one of a kind to ensure pollination** for fruit production.

***Amelanchier alnifolia* 'Regent' Juneberry** 4-6' Also called **Serviceberry** or **Saskatoon Shadbush**. Compact shrub form with excellent foliage and berry production. Large fragrant white flowers bloom in early spring. Large sweet purplish fruit in July. Good fresh, in pies, jams or dried. Used by native peoples in western Canada to make pemmican. Prefers slightly acid soil, pH 5-7. Tolerates partial shade, salt, pollution and wet spots but not standing water. Native to western U.S. and Canada. Z2. (6-12" heavy-rooted plants)

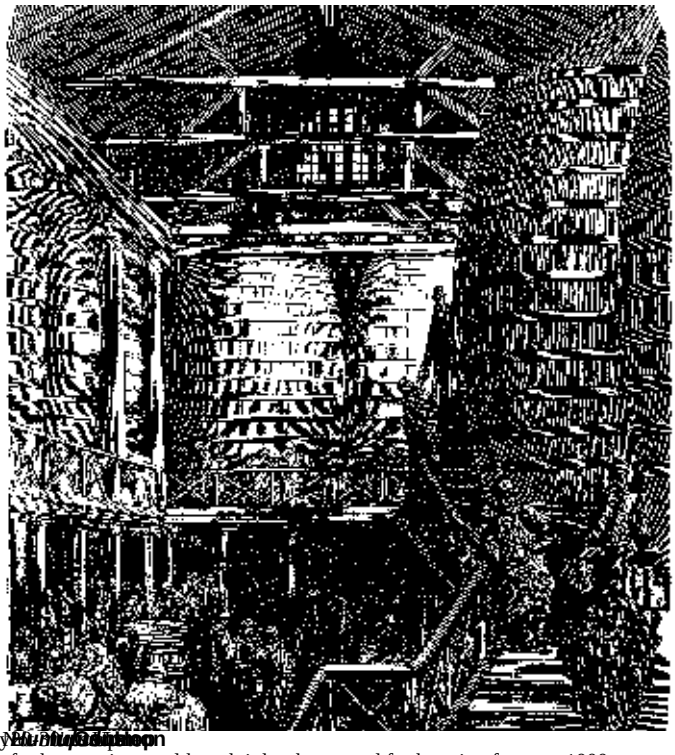
2570 Regent Juneberry, $11.00

***Cornus mas* Cornelian Cherry** 20-25' Large multistemmed shrub with oval to rounded form, or a small tree if you prune lower branches. Covered with small bright yellow flower clusters for 3 weeks in early spring, even before Forsythia. Attractive long ovate leaves are shiny rich green. Bears profusions of dark red almost black 1-1/2" oblong cherry-like fruit from mid-late summer into fall; one tree can produce 30-70 lbs. a year. Fruit is sweet, tart and tasty, traditionally used fresh, dried, pickled, in tarts, jellies, syrups and drinks. Best for fresh eating when dark red, soft and beginning to shrivel. Fruits have twice as much vitamin C as oranges; folkloric use for skin disorders, joint pains and stomach upset. Flaky, exfoliating greyish to orange-brown bark. Extremely tough wood suitable for shafts, spokes and even bolts. Easy to grow, pest- and fungus-free and very long lived. Excellent as a hedge or specimen. Prefers well-drained soils but adapts to most soils, city conditions, even shade. Drought tolerant. Resistant to deer browsing. Fruit buds tend to escape early spring frosts although they can be injured in colder areas. Pest problems negligible. Self-pollinating, though pollination may improve with more trees. Native to eastern Europe and western Asia. Z4-5. (6-12" heavy-rooted plants)

2640 Cornelian Cherry, $8.00



Cornelian cherry and kiwi drawings are by Vicki Herzfeld Arlein from Uncommon Fruits Worthy of Attention by Lee Reich, whose new book on uncommon fruits is coming out next year.



only ***Humulus lupulus*** **Common Hop**

for brewmeisters, although it has been used for brewing for over 1000 years. Beautiful twining vine dies back to the ground in fall and still covers a trellis or archway next growing season with green lobed leaves, bristly stems, insignificant greenish flowers, and the hops themselves: papery aromatic cone-like strobiles that are used in brewing and insomnia remedies. Europeans cook and eat young shoots like asparagus. For brewing, there are basically two types of hops. Aroma hops have lower alpha acids and are used as a finishing or conditioning hop. Bitter hops have higher alpha acids and are used to extract bitterness. Tolerates shade, adapted to most well-drained soils. Plant it where you want it because you may never get rid of it. No serious pests or diseases. Native to Eurasia. Z3. (5-6" female rhizomes)

Cascade Hops USDA 19124 (Fuggle x Serebrianka-Fuggle S) x open pollinated. Oregon St U, 1972. Fragrantly aromatic, used as an aroma hop for flavoring American light lagers. Cones feel buttery to the finger. Low bittering value. Resistant to downy mildew.

2670 Cascade Hops, 3 crowns for $9.00

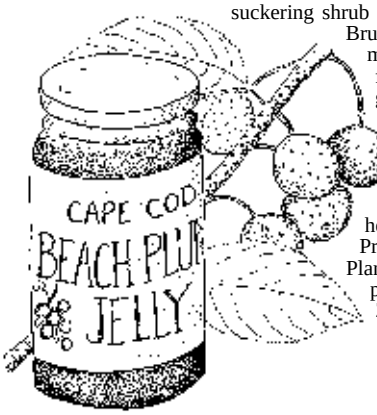
Willamette Hops USDA 21003 x Fuggle Seedling 2-4, USDA, 1976. Excellent all-purpose hop. Old English-style aroma with brewing characteristics similar to Fuggle. Low bittering. Mild aroma. Good finishing hop for brewing English ales and stout. Vigorous. Higher yielding than Fuggle. Ripens midseason (late summer) and has good disease resistance.

2674 Willamette Hops, 3 crowns for $9.00

Prunus americana **American Plum** 15-20' Seedling plum that grows in thickets and produces very decent red yellow and orange 1" fruit, suitable for fresh eating, canning and freezing. Spectacular white bloom in spring. Plant singly as a graceful specimen or plant 2-3' apart and let the branches intertwine for maximum pollination. Red fall color. Will cross-pollinate with any of the hybrid plums (see items #**1683**-**1755**). Use as rootstock for hybrid and Japanese plums. Extremely hardy. Z3. (1-2' plants)

2707 Prunus americana, bundle of 10 for $15.00

P. maritima **Beach Plum** 6 x 5-6' Late summer. Rounded dense suckering shrub found along ocean beaches, New Brunswick to Carolinas. It's hard to miss the profusion of white flowers on Cape Cod in May on a good year. Purplish-red 1/2-1" fruit in late summer. Excellent jams, sauces, jellies. If you're a meat eater, nothing beats beach plum jelly with lamb. Does well in poor and sandy or heavy well-drained soils. Productive, reliable, salt tolerant. Plant about 6' apart, at least 2 for pollination. Native to eastern U.S. Z3. ❄ (18-36" plants)



2722 Beach Plum, $10.00

P. tomentosa **Nanking Cherry** 6-10' Broad dense shrub, becoming open and attractively irregular. Pink buds open to fragrant white 3/4" flowers. Soft furry (tomentose) foliage. Very tasty but variable scarlet 1/2" fruit for pies and jams. Excellent hedge plant; prefers full sun in well-drained soil. This is an edible landscape crop that produces a lot of fruit that actually *is* edible! Covering plants with netting will deter birds from robbing your crop. Plant two or more for pollination. Native to China and Japan. Z2. (1-2' plants)

2725 Nanking Cherry, $10.00

Elder ***Sambucus canadensis*** **Black Elderberry,**

6-12' Broad vigorous multistemmed shrub with spreading branches and unkempt habit. Large flat white flower clusters in early summer cover the shrub, make delicious fritters or a tea for colds and flu. Purple-black berries in late summer used in jelly or pie, famous for wine and attract many species of birds, beneficial insects, and other wildlife. Best grown in moist rich soil. Free from diseases and insects. Two varieties needed for pollination. Native to eastern U.S. Z3. (1-yr medium plants)

Adams No. 1 Selected by William Adams, Union Springs, NY, 1926. Vigorous strong productive bushes. Large berries and fruit clusters.

2760 Adams No. 1, $9.00

York Adams No. 2 x Ezyoff. NY Station, 1964. Considered the largest-fruited and heaviest-bearing cultivar. Heavy clusters ripen after Adams. Bright green foliage on a large rounded shrub.

2780 York, $9.00

Viburnum trilobum **'Wentworth' Highbush Cranberry** 8-12' Also known as **Crampbark**. Multistemmed shrub, good for screens and hedges, has clusters of white flowers in May. Pendulous clusters of brilliant red-orange berries hang September-February and are still edible off the bush in midwinter. Berries make jams and preserves, also are popular with dozens of bird species, especially waxwings. Flowers help attract and support beneficial insects. Bark used as anti-spasmodic; tea especially good for relieving moontime cramping. Maple-like leaves tinged red in the spring. 'Wentworth' was selected for edibility and large fruit size in the early l900s from a collection of 3000 viburnums. Bright lime-green leaves. Red fall foliage. Tolerates dry soils if high in organic matter, but prefers rich moist well-drained soils, sun or shade. Soil pH 6-7. Pollution tolerant. Not a bog cranberry (see #**2496**). Native from Canada to NY. Plant at least two for pollination. Z2. (1-2' plants)

2885 Wentworth Highbush Cranberry, $8.00

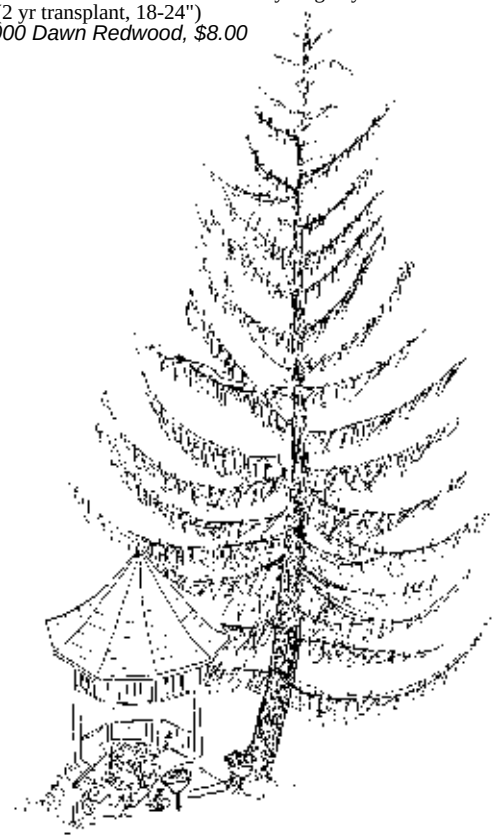
Conifers transplanted once in the nursery have a much higher success rate. These conifers are mostly three- to four-year-old transplants. 2-2TR means the plant is 4 years old: 2 years as a seedling and 2 years as a transplant. P+2 means one year as a plug and 2 years as a transplant. Before planting, dip trees in Agri-gel (see sidebar) which is also available in the Organic Growers Supply section of our Seed catalog.

Abies balsamea **Balsam Fir** 45-75' Often considered the "only real Christmas tree." Fragrant needles, a favorite for wreaths, pillows and potpourri. Small blisters (which are fun to "pop" at other people) on younger trees contain a transparent aromatic resin that native peoples used as an inhalant for headaches and congestion, and as a poultice for burns, cuts and arthritis. Narrow, conical, smooth-barked. Prefers well-drained moist acid soils. Avoid polluted areas. Semi-shade tolerant, slow-growing. Good specimen tree and songbird nesting area, and a favorite browse of moose and deer. The most abundant conifer in Maine, "country of the pointed firs." Native Labrador to PA. Z3. (3-2TR, 9-18")

2910 Balsam Fir, bundle of 5 for $13.00

Metasequoia glyptostroboides **Dawn Redwood** 100' If you were going to plant only one ornamental tree from the Fedco catalog, this should probably be the one. The wide irregular trunk looks like something out of a fairy tale with its iridescent golden-orange bark that becomes deeply grooved, hollowed and fluted with age. The bright green deciduous needles turn orange in the fall. Grows quickly, up to 50' in 15-20 years, with many small-diameter horizontal branches and a uniform conical habit. Easy to transplant. Prefers moist deep well-drained slightly acid soil in full sun. Will tolerate wet sites. Pollution resistant; good specimen or street tree, rarely needs pruning. Fossils dating back 50 million years have been found in Japan. Thought to be extinct until it was rediscovered in central China in 1941. Resembles California redwoods only vaguely. Native of China and Japan. Z4. (2 yr transplant, 18-24")

3000 Dawn Redwood, $8.00

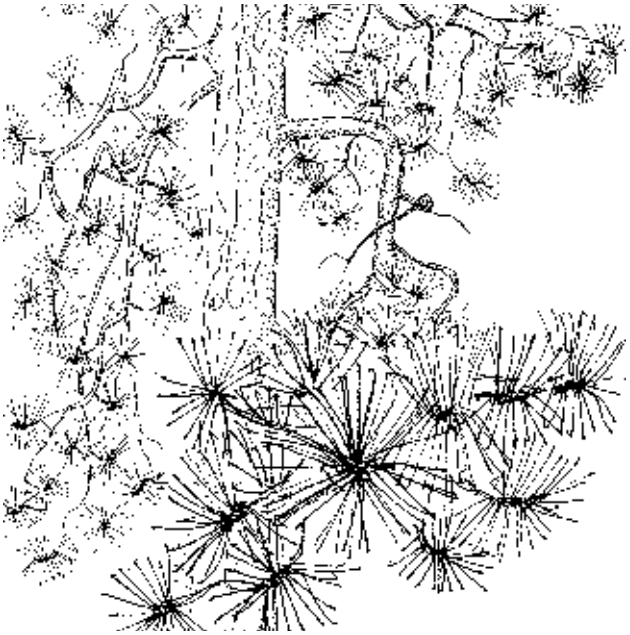


picturesque spruce with graceful long pendulous branches that often reach the ground. If you go to the Mt. Auburn Cemetery in Cambridge, MA, don't miss the ancient Norway Spruce just inside the front gate. Several of its massive drooping branches have themselves turned into secondary trunks. It is truly spectacular. Orange-brown scaly bark. Showy (marketable!) 4-6" cones, largest of the spruce. Bright green foliage. Prefers loam but does better than other spruces on poorer soils. Excellent lumber. Native to northern Europe. Z2. (2-2TR, 9-15" plants)

3040 Norway Spruce, bundle of 5 for $13.00

P. pungens glauca **'Majestic' Colorado Blue Spruce** 30-60' Very popular specimen tree with truer blue foliage than other cultivars. Can be used as a screen; fast growing after 3'. Does not like wet soil. Extra spring nitrogen will improve blue color, which doesn't appear for first few years. Native to western U.S. Z2. (2-2TR, 8-14")

3060 Colorado Blue Spruce, bundle of 5 for $13.00



Pinus resinosa **Red Pine** 50-80' Also known as **Norway Pine**. Probably called *Norway* Pine because the first specimens taken to England and planted in Kew Gardens were from Norway, Maine. Others speculate that Europeans first encountered this native tree in what became Norway, Maine. Perhaps both are true. Broad irregular or rounded crown of spreading branches. Long soft 3-8" needles. 1½-2½" egg-shaped cones. Distinctive pinkish-silver scaly plated bark. Fast growing; thrives in poor soil, even sand. Some of the most beautiful specimens in central Maine are growing in a mixture of sand and gravel with apparently no organic matter at all. Relatively disease-free. Nearly became extinct during the last ice age, but is making a comeback. You can help! Native to northeastern U.S. and Canada. Z3. (3-1TR, 6-12")

3170 Red Pine, bundle of 5 for $13.00

P. strobus **Eastern White Pine** 100'+ The largest northeastern conifer. Magnificent and massive when mature. 200 years ago the white pines here in Palermo were typically 250' tall. You could stand a team of oxen on a stump! The current Maine champion, 132' tall, grows in Morrill and measures 6'9" in diameter. 2-5" blue-green needles and 3-10" cones. Smooth greyish-green bark becomes thick, rough and deeply furrowed with age. Medicinal teas are made from needles. The resin has numerous practical and medicinal uses. Excellent wood with a thousand uses. Planted thick and sheared, it makes a beautiful hedge which will not drop its lower branches with maturity. Grows fast and transplants well. Likes ordinary to poor—even sandy—soil. Shade tolerant, but does not like salt or roadsides. Do not plant within 300' of currants or gooseberries. Maine's state tree and Fedco Trees' logo. Native to eastern U.S. (P+1, 5-10")

3180 Eastern White Pine, bundle of 5 for $13.00

Thuja occidentalis **Arborvitae** 20-60' Arborvitae means tree of life. Also called **Eastern White Cedar**. Narrow and tall with twiggy branches, soft orange-brown bark, and flat foliage unlike that of any other conifer. Foliage and bark tea high in vitamin C. Foliage tea helpful in infections, twig decoction makes an anti-viral anti-fungal skin wash. Valuable light fragrant wood, the standard for fence posts and log cabins in Maine. Slow-growing, lives up to 400 years. Thrives in rich moist marshy neutral-to-alkaline soils. Good for screens and hedges. Probably the first North American tree brought to Europe. Next time you're on Mount Desert, check out Thuja Gardens: beautiful cedars surrounding even more beautiful flower gardens. While you're there, visit Asticou Azalea Gardens, just down the road. Z2. (3-1TR, 6-12")

3230 Arborvitae, bundle of 5 for $13.00

Agri-gel A hydrogel formulation which absorbs and holds water. The swollen crystals adhere to plant roots, reducing transplant shock. Safe, non-toxic, easy to use. Useful for garden seedlings as well as woody plants. Highly recommended for raspberries and conifers. Half-ounce packet mixed with one to three gallons of water will treat up to 100 cane plants, or 50 trees and shrubs. ½ oz.

7510 Agri-gel, $2.00

Nut Trees

Other than hazelnuts, nut trees should be planted 50' apart for nut production, 20' apart for lumber. **At least two trees of each species are required for pollination**.

Castanea mollissima **Chinese Chestnut** 40-60' x 40-60' Low-branching broadly rounded open form with large long narrow sharp-toothed shiny green leaves. It's a tree-climber's tree. Humorous catkins look like green fireworks sprouting from the branch tips. Decent-tasting prickly burr-encased edible nuts as early as 4 or 5 years after planting. Of the same genus as the beloved American Chestnut (*C. dentata*, which we'll offer again in 2004), but a quite different tree. Immune or at least highly resistant to the dreaded chestnut blight (*Endothia parasitica*) and used in breeding work to develop a blight-immune American Chestnut. Yellow fall color. Grooved gray bark. Prefers acid well-drained loamy soils. Native to eastern Asia. Z4. ❄ (3-4' plants)

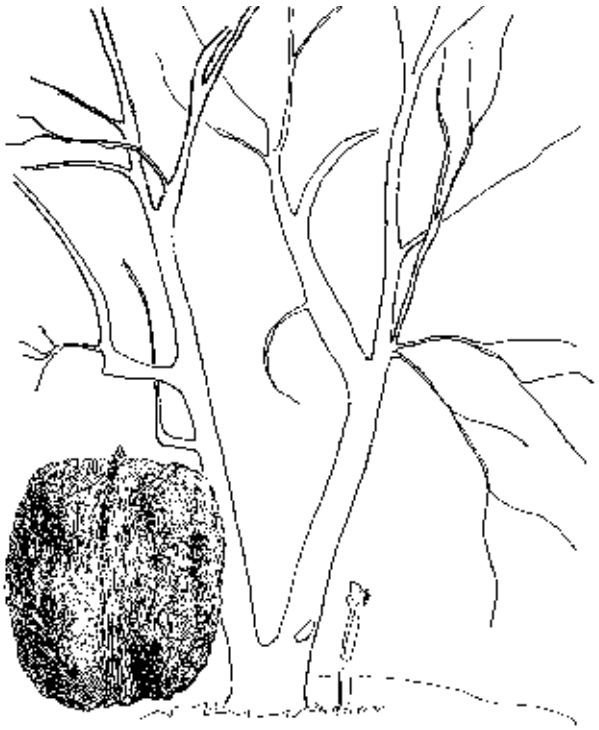
3405 Chinese Chestnut, $10.00

Corylus americana **x** ***C. avellana*** **Ozmun #2 Hazelbert** 10-15' x 10-15' A large dense vase-shaped shrub or small tree which can be expected to produce large crops of high quality nearly round nuts with very good flavor on a two or three year cycle. Fruiting should begin 3-4 years after planting. A composite hybrid of five selected individuals, Ozum #2 originally came to us from Oikos Nursery in Michigan. Quite attractive large 4" round serrated foliage. Sun to light shade. Shallow rooted. Prefers sandy loam. Plant close (3-4') for a dense hedge, or farther apart (10-20') for a nut "orchard". Two or more necessary for pollination. Nuts and catkins are a wildlife favorite. I always know when the birds have been feasting on my catkins; they leave their signature on the back porch. Resistant to filbert blight. Z4 ❄ (2yr., 2-3' bushy plants)

3427 Ozmun #2 Hazelbert, $10.00

Juglans nigra **Black Walnut** 70-90' Magnificent open rounded crown of massive limbs with dark green leaves. Highly valued cabinet and veneer wood. Thick-shelled edible nuts have an intense distinctive flavor. Their husks yield a rich brown dye. Husks, leaves and roots are all anti-fungal. Deep taproot. Prefers moist, well-drained soils, pH 6-7. Roots give off a compound, juglone, which inhibits competing plants, so don't plant one too close to your garden. Native to eastern U.S. though not quite into Maine. Z4. ❄ (16-24" plants)

3455 Black Walnut, $10.00



J. regia **English** or **Carpathian Walnut** 40-60' x 40-60' Very large open somewhat vase-shaped tree with those edible nuts you buy in the store. Has the same alternate pinnately compound foliage as black walnut (above) but each glossy blue-green leaf is larger and more rounded, almost tropical looking. The branches are smooth medium-light grey, while the trunk and large limbs are accented with dark grey—almost black—grooves. Prefers light deep dry loamy soil. Doesn't like ledge or wet feet. Because our trees are seedlings, nut quality will be variable. Native to southeastern Europe and east to China. Z4-5. ❄ (2-3' plants)

3460 English Walnut $10.00

Shade Trees

One of my favorite places to see trees is the Mount Auburn Cemetery in Cambridge, MA. Over 200 acres, packed with hundreds of different species, it is truly spectacular. Most of the trees we offer have been growing there for generations. Maps are available showing where to find dozens of unusual specimens and the trees and shrubs are labeled. Next time you're near Boston, plan to spend at least a couple of hours there—better yet, half a day. You can drive right in and park practically anywhere.

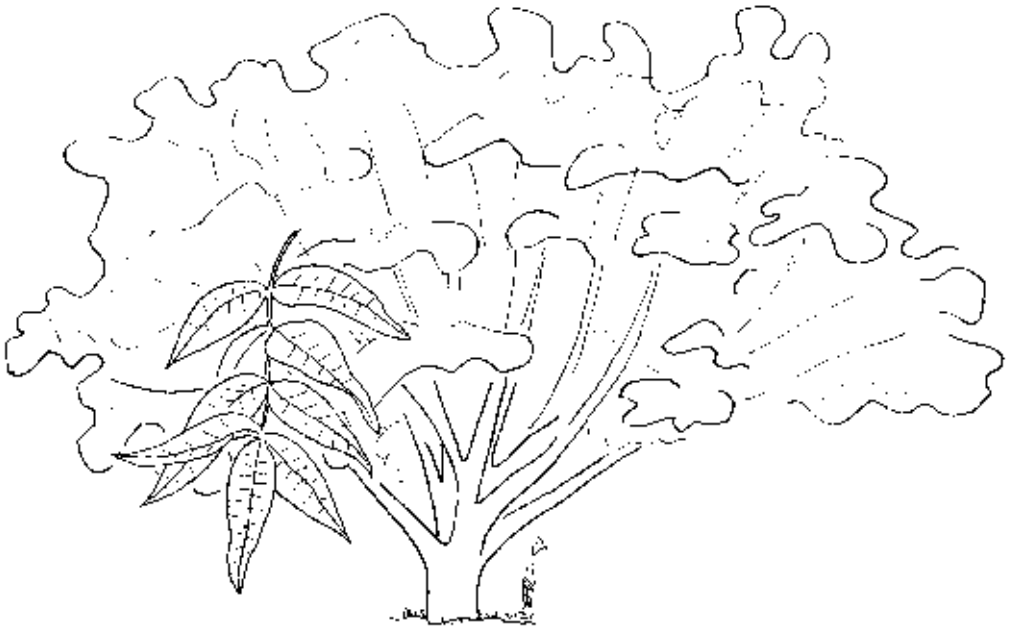
Each year we offer a selection of our favorite shade trees. These larger trees release large quantities of water into the atmosphere through transpiration. They deflect the wind, attract earthworms, provide wildlife habitats, metabolize and reduce airborne pollutants. On blistering 90˚ summer days, it's clearly ten degrees cooler one step into the shade of the huge red oak in our yard: natural air conditioning. Other noteworthy features range from majestic beauty to herbal value to good wood for cabinets, fence posts and fires. Best of all, they provide shade!

Acer rubrum **Red Maple** 50-60' Also known as **Swamp Maple**. While the Sugar Maple often has a bushier shape, the Red Maple usually has a central leader and a more upright growth habit. In early spring the dark red flowers cover the driveway long before any leaves appear. In the fall the foliage turns electric orange, yellow, brilliant red or maybe all three on one tree. The astounding combinations of colors surround me as I head off in my truck to go apple exploring every October. Excellent in the yard. Does not have the weak branching problems of Silver Maple. Sometimes tapped for sap in spring. Transplants easily. Prefers moist acid conditions but is adaptable to dry locations. Native to eastern North America. Z3. ❄ (2-5' transplants)

3625 Red Maple, $10.00

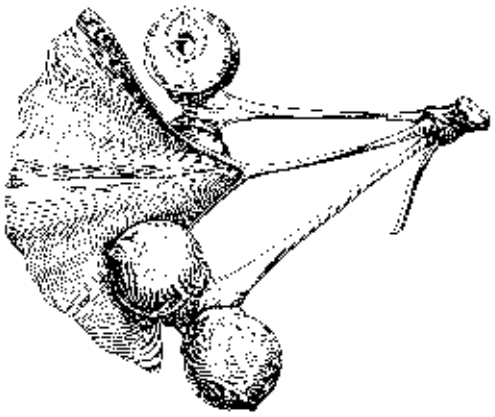
A. saccharum **Sugar Maple** 50-100' Largest of our native maples, also known as **Rock Maple**, valued for shade, syrup, and lumber. Famous for its yellow gold scarlet and crimson fall foliage. Light grey bark. Fresh sap a spring treat. Very hardy. Shade tolerant, making it easy to interplant in existing woods. Prefers moist, well-drained soils. Huge upright spreading form. Traditionally a pair of Sugar Maples was often planted out in front of a farmhouse on the inhabitants' wedding day. Those "wedding trees" still grace many Maine front yards after all these years. Susceptible to salt and air pollution; not a good city tree. Native Quebec to Gulf Coast. Z3. ❄ (3-5' plants)

3630 Sugar Maple, $13.00



Aesculus hippocastanum
Horse Chestnut 50-75' x 40-70' Neighbors on Route 3 in Palermo recently cleared a long-abandoned field and revealed a gigantic old horse chestnut. What a treat. They should be given a community-service award! Many Maine dooryards still feature these huge shade trees with their magnificent white 8-12" candle-like flower clusters in late spring standing erect and covering the large conically shaped tree. Distinctive five-palmate leaves look tropical and are a rich dark matte blue-green. Wood traditionally used in charcoal production; bark in medicines, leather tanning and fabric dying; seeds in bookbinding, medicines (most notably as a cure for ailing horses!) and even in an ersatz coffee. Squirrels and deer will clean up any seeds you don't use. See *Arnoldia* (Vol 61, No 4, 2002) for several wonderful articles on this amazing tree. Prefers moist well-drained soil, sun or partial shade. Tolerates salt. Native to southeastern Europe. Z3. ❄ (18-24' plants)
3650 Horse Chestnut, $8.50

Fraxinus nigra **Brown** or **Black Ash** 40-50' Tall slender tree with a short narrow crown prefers rich moist ground, wet swamplands and stream banks. The bark is corky, spongy, chalky, and rubs off in your hands. Seems to be disappearing, although once common in the Northeast. Always known in Maine as Brown Ash, but called Black Ash elsewhere. Preferred by basketmakers because it easily splits into strips. Once commonly used for barrel hoops, it also makes a rich brown cabinet wood. We are encouraging a major replanting effort of this great tree and will continue to do so as long as we can find a source of stock. Austin Moore of Whitefield, friend and resourceful farmer, grew these for us. Native to eastern U.S. and Canada. Z2. ❄ (2-4' plants)
3720 Brown Ash, $8.50



Ginkgo biloba **Ginkgo** 50-80' Also called **Maidenhair Tree**. Considered the oldest living genus of seed plants; grew in North America in the time of the dinosaurs. Upright then wide-spreading habit, slow-growing. Unique fine-cut fan-shaped foliage turns sparkling golden-yellow in fall, then all at once the leaves drop and within hours the tree is bare. At Unity College they have a contest to guess when the leaves will drop off the Ginkgo by the library—kind of like *ice-out* contests in the spring. Edible seeds, produced on female trees after 20-50 years, widely used in Asia. Leaves taken to enhance circulation to the brain and extremities. Tolerates smoke, dust, wind, ice, insects, disease, salt. Prefers moist sandy neutral soils but is very adaptable. Minimal maintenance requirements, an excellent city tree. Has anyone ever counted how many there are in Manhattan? There must be thousands. I even discovered two growing *inside* a crabapple tree at the Brooklyn Botanic Gardens. Can be extremely long-lived. Male and female tree required for fruit. These are unsexed seedlings. Native to southeastern China. Z3. (2-4' plants)
3730 Ginkgo, $8.50

Phellodendron amurense **Amur Corktree** 40x60' Large densely branching tree has a major presence and an African character. Extremely wide-spreading and fan-shaped with half a dozen or more major limbs all emanating from a cluster only a few feet above the ground. One could imagine this tree shading a lioness relaxing with her cubs and a cut of fresh gnu. Large Dr. Seuss-like mounds of relatively small dark green pinnately compound foliage sit scattered across the crown, leaving the picturesque branch structure largely visible year-round. The deeply grooved corky bark is highly ornamental. Not a tree you'd find out in the woods up this way. Adapted to many soils, acid or alkaline, city or country. Prefers full sun. Disease free. Native to eastern Asia. Z3. ❄ ($2^1/_2$-4' plants)
3765 Amur Corktree $8.50

Quercus macrocarpa **Bur Oak** 70-80' x same. Hardiest of the white oaks with a furrowed and massive trunk and a wide-spreading crown of huge branches. The trunk is the most imposing of all our northern oaks and the bark is the most deeply grooved. This is a spectacular tree. The habit is somewhat more upright vase-shaped than *Q. alba* (White Oak). Lustrous dark green foliage 4-12" in length. Small branches distinctively corky, winged, and tend to twist and kink. Large 1-2" acorns almost entirely enclosed in a fringed cup; edible, low in tannic acid. Acorn flour was a staple food of native people for thousands of years. Roasted acorns make a decent coffee drink. The bark is astringent and antiseptic. Needs full sun; tolerates clay soils, dry to moist, acid to alkaline. The most urban-tolerant oak. Pyramidal in youth. Fairly fast growing. Native of eastern U.S. and Canada. Z2. (2-3' plants)

3791 Bur Oak, $13.00

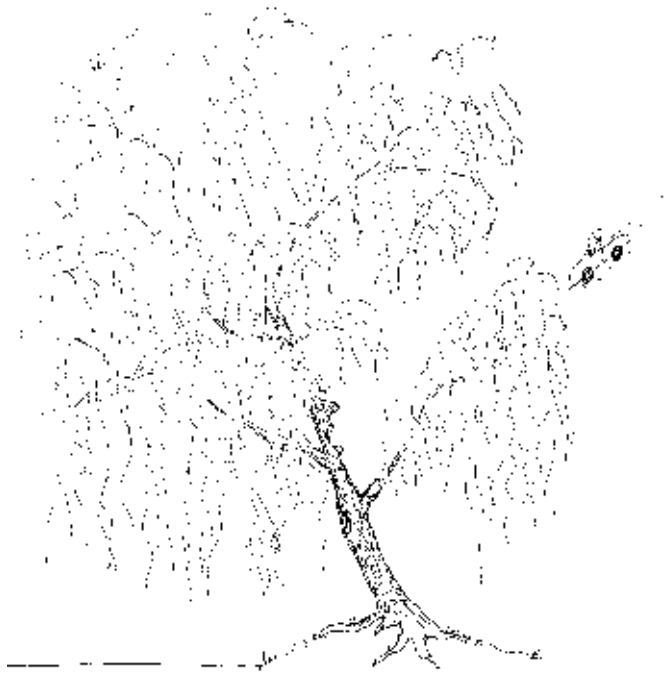
Q. rubra **Red Oak** 60-80' Also called **Northern Red Oak**. After careful study of the major oaks in the Northeast, I'd like to offer the following scientific observations: the Pin Oak (*Q. palustris*) is ready to *leave* the earth, the ethereal White Oak (*Q. alba*) has already left, the granitic Black Oak (*Q. nigra*) is turning to stone, the Bur Oak (*Q. macrocarpa*, see above) is plunging *into* the earth, and the Red Oak (*Q. rubra*) is the most *connected* to the earth. Next time you see them all in one place, let me know if you agree. There's something about how that massive trunk fans out perfectly to join the ground: the essence of connectedness. While its branches are not as massive as some of the other oaks, its fan-shaped rounded crown is magnificently impressive. The trunk itself is a deep gray textured web of surfaces overlaid upon one another. This is a beautiful tree. Fast growing, up to two feet per year. Prefers well-drained sandy loam, slightly acid soils. Will tolerate shade, compacted soil, salt, pollution and other urban conditions. The acorns love my gardens and I seem to cultivate a new crop of seedlings effortlessly every year. Disease and insect tolerant. Eastern U.S. Z4. ❄ (2-3' plants)
3797 Red Oak, $9.00

***Robinia pseudoacacia* Black Locust** 30-50' A fast-growing upright tree with a narrow crown. Will develop thickets from seed and suckers. Extremely fragrant flowers in mid-late spring attract bees and make excellent honey. Fence posts last an incredible 50 years or more. Considered one of the best boat-building woods and an excellent firewood. Adaptable to nearly all soils and can survive the toughest conditions. Nitrogen fixing. Native to eastern U.S. Z3. ❄ (3-4' plants)

3820 Black Locust, $7.00

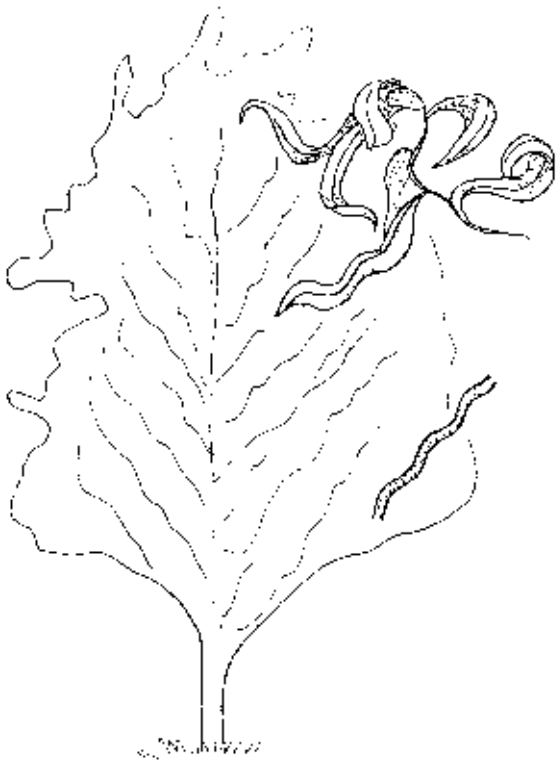
***Salix* spp. 'Cape Rosier' Basket Willow** 50' more or less. If you're looking to make a basket, a bowl or maybe a boat this could be the only material you need. Beautiful subtly golden-colored basket willow propagated from the Old Nearing Homestead on Cape Rosier, ME. The trees have been pollarded for many years, a European pruning technique that enhances the formation of long whips for basket-making, enables easy annual spring harvesting and controls the size of the tree. In time, the trees develop a gnarly head which has great character. Stanley Joseph, homesteader on Cape Rosier and neighbor of the Nearings, used this willow for many years to make everything from baskets to boats (the Irish coracle). It was with Stanley's encouragement many years ago that I first planted basket willows at home in Palermo. Prefers sun and moist soils. Z4.❄ (well-rooted transplants)

3832 Basket Willow, $9.00



***S. alba* 'Tristis' Niobe Weeping Willow** 50x50' The classic weeping willow, a very large majestic and extremely graceful wide-spreading tree. Golden drooping branches can hang to the ground. Branches used for basket weaving; golden bark and leaves used medicinally. Not to be confused with the Whomping Willow of Hogwarts fame—branches sway freely in the breeze but are unlikely to attack, though roots have been known to disrupt plumbing. Easily transplanted and fast growing. Prefers sun and moist soils. Native to southern Europe and western Asia. Z4. ❄ (2-6' plants)

3833 Niobe Weeping Willow, $9.00

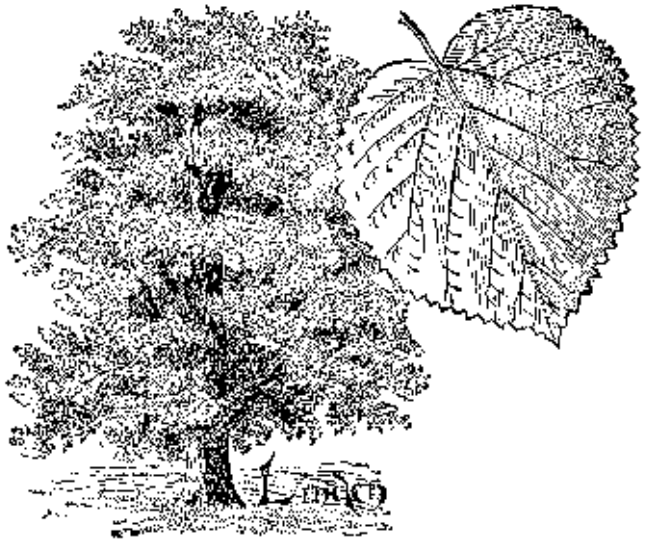


***S. matsudana* 'Snake' Snake WIllow** 30-50'. A fast-growing wide oval tree with distinctively curled wiggled and twisted branches. The twigs look like sine waves, or maybe a graph of the stock market. Even the foliage loops and curls. 'Snake' is a selection of the standard contorted 'Tortuosa' willow with an even more wild branching habit. Interesting outside in the yard and beautiful in a wreath or a vase. Quite nice as a young specimen. Keep it pruned and small if you like. Drought tolerant, although like the other willows, it thrives in moist locations. Generally considered a Zone 5 plant, although you might find it does well in Zone 4. Native to Argentina. ❄ (3-4' plants)

3843 Snake Willow, $9.00

***Tilia americana* American Linden** 60-80' Also known as **Basswood**. Tall stately tree with rounded crown and numerous low-hung spreading branches. Good tree for attracting bees no matter how remote the location. Sweetly fragrant yellow June flowers reputed to make the best honey, also a popular after-dinner tea and stomach remedy. Excellent soft carving wood. Inner bark, tough and fibrous, for ropes and nets. Young fruit and flowers ground into a paste as a chocolate substitute. Yellow fall color. Likes deep rich moist soils, but will grow in dry heavier soils. Full sun or partial shade. Sensitive to salt and pollution. Tolerates alkaline soil. Subject to Japanese beetles and other insect damage, though control measures are seldom needed. May live to 900 years. Native New Brunswick to Virginia. Z3. (2-3' heavy-rooted plants)

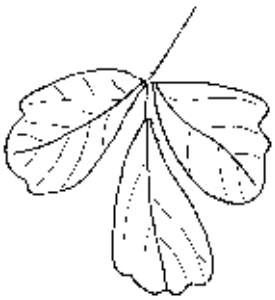
3850 American Linden, $9.00



Ornamental Trees

Although some of these smaller trees are certainly large enough to provide shade and others may provide excellent wildlife food and cover, their chief attribute tends to be their beauty. Some have spectacular blooms while others have amazing foliage, fragrance, bark, branch structure or overall appearance. All deserve to be planted more often than they are.

***Acer griseum* Paperbark Maple** 30x40' Highly ornamental and arguably magnificent. In younger trees, one or two trunks divide quickly to 30-40 branches all fanning out in an open airy rounded somewhat vase-shaped form. The 90 year old specimen at the Arnold Arboretum has a less branchy and more craggy appearance and, as Michael Dirr put it, "assumes a dignity unmatched by other trees." It's worth a trip to Boston just to see that one tree. Curls of exfoliating bark in incredible colors, ranging from pure copper to rich golden orange and looking like old varnished leather, hang attached to the trunk and branches. Medium-blue-green small leaves sit on the exterior leaving the center open and the trunk and branches exposed. Soil and pH adaptable. Likes good drainage and full sun. No disease. Native to central China. Z4-5. ❄ (2½-3' plants)



3902 Paperbark Maple, $14.00

***Cercis canadensis* Redbud** 25-30' Small irregularly vase-shaped tree with graceful branches and a trunk usually divided close to the ground. Clusters of small brilliant purplish-pink pea-like flowers in early spring are so abundant it seems that any place there could possibly be a flower there is one. They even dot the branches themselves and come right out of the trunk. It's an amazing sight. Very large, up to 7", heart-shaped leaves emerge a beautiful opaque pink, gradually mature to deep green and give bright yellow fall color. 2-3" flat leguminous pods. Excellent honey plant. Sun or partial shade. Fine as a specimen tree or in groups. Needs sweating before planting to break dormancy; full instructions included. Native to central and eastern U.S. Z4. ❄ (2½-6' plants)

3907 Redbud, $11.00

***Chionanthus virginicus* White Fringetree** 15-30' x 30' Michael Dirr, in his definitive *Manual of Woody Landscape Plants*, suggests the Fringetree should be our national shrub. I agree. Large multistemmed shrub or small tree with an open spreading rounded form. So completely covered with lightly fragrant clouds of feathery lacey white flower-clusters in spring that you can hardy see the beautiful glossy rich dark green foliage when it's in bloom. From a distance, it looks like a tree with a poof. Spectacular as a specimen, in groups, borders, near buldings. Small bluish-black fruit sought by birds. Adaptable, but prefers moist fertile acid soil. Tolerates air pollution; does well in cities. Native of eastern U.S. Z3. (15-24" plants)

3910 White Fringetree, $14.00

***Cornus alternifolia* Pagoda Dogwood** 20' x 30-35' Also known as **Alternate-Leaved Dogwood**. Small tree or large multistemmed shrub, particularly beautiful for its tiers of horizontal branches and their distinct sympodial (consecutive "Y's") branching habit right down to the smallest twigs. Extremely fragrant white 2-3" flower clusters in mid-late spring, followed by immature olive-green berries, each tipped with a tiny bright yellow style remnant. In midsummer clusters of dark blue berries ripen above the blue-green foliage. One of the most popular dogwoods with the birds. Prefers partial shade and moist well-drained acid soil, but tolerates full sun, poor soil and even clay. pH adaptable. Excellent naturalized as a specimen or in groups and often found growing with sugar maple, beech and basswood. Reddish-purple fall color. Native to eastern U.S. Z3. (18-24" plants)

3920 Pagoda Dogwood, $9.00

***Crataegus viridis* Winter King Hawthorn** 20x20' Simpson Orchard Co. introduction, Vincennes, IN, 1955. One of the most outstanding ornamental hawthorns. Medium-small rounded vase-shaped tree with a beautiful white bloom in spring followed by large (½") red berries that persist all winter. Lustrous green foliage turns scarlet-orange in fall. Distinct grey-green stems. Exfoliating bark. Less susceptible to rust than other hawthorns. It can be difficult for hawthorns to break dormancy the first year. You need to 'sweat' them and be patient! Instructions included. Native to eastern U.S. Z4. ❄ (3-4' plants)

3952 Winter King Hawthorn, $9.00

***Hamamelis virginiana* Witch Hazel** 20-30' A small tree or large shrub of irregular rounded form and interesting crooked branches. Yellow ½" flowers with a unique fresh fragrance appear in the fall as the oval leaves turn brilliant golden-yellow. Witch hazel extract, from leaves, young bark and roots, has astringent and antiseptic uses. Said to be the preferred wood of dowsers. Full sun or shade. Prefers moist acid soils; avoid dry spots. No pests or diseases. Native Canada to Georgia. Z3. (1-2' plants)

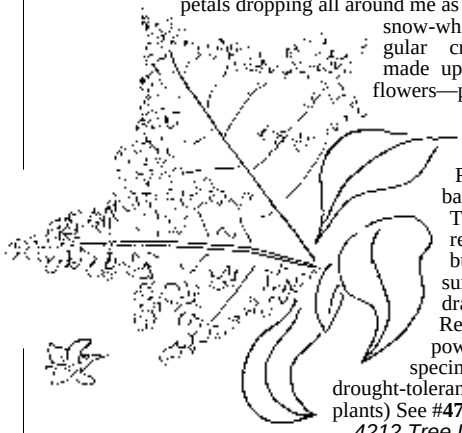
3970 Witch Hazel, $8.00

*4100-4164 **Malus* Crabapples** on page 24.

***Sorbus decora* Showy Mountain Ash** 20-25' Also known as **Northern Mountain Ash**. Small tree with a spreading rounded crown and classic Mountain Ash leaf shape; each of the pinnately compound leaves has about a dozen blue-green long narrow toothed leaflets, somewhat whitened on the underside. Showy bright white umbel-like blossoms in spring, large bright red berries, yellow-red fall color. Oddly enough, you can graft pears onto Mountain Ash. Definitely a way to surprise your neighbors. Prefers moist soils. Hardiest of the Mountain Ash. Native of northeast U.S. and Canada. Z2. (3-4' plants)

4207 Showy Mountain Ash, $15.00

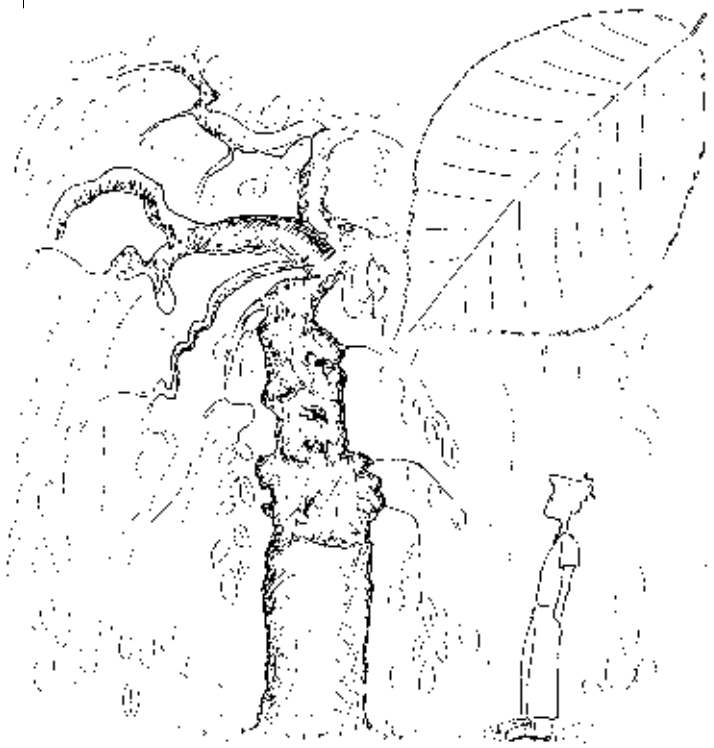
***Syringa reticulata* Japanese Tree Lilac** 20-30' x 15-25' What a treat to sit beneath a blooming Tree Lilac in early summer with fragrant petals dropping all around me as the bumble bees work the last snow-white blossoms. Large lacy triangular creamy-white panicles—each made up of countless tiny 4-petaled flowers—perch above the canopy of dark green foliage. Their wonderful fragrance is reminiscent of almond extract. Reddish brown cherry-like bark is grooved and checked. The tree itself has a rounded irregular habit. Strip off lower buds to ensure tree form. Full sun to partial shade and well-drained soil, with a pH of 6.5-8. Resistant to lilac borers and powdery mildew. Beautiful as a specimen or in groups. Salt- and drought-tolerant. Native of Japan. Z3. (2-3' plants) See #**4790**-**4877** for other lilacs.



4212 Tree Lilac, $9.00

***Ulmus glabra* 'Camperdownii' Camperdown Elm** 15x30' Discovered in 1640 in Dundee, Scotland, by the Earl of Camperdown who recognized its unique and wonderful shape, and grafted it onto a Scotch or Wych elm (*U. glabra*). All the Camperdown elms in the world come from that original tree. Low-growing mounded very wide-spreading weeping form. Somewhat contorted branches laden with thick dark green summer foliage hang to the ground, creating a protected "room" which looks quite dense from the outside, but is completely open on the inside—plenty of space for a table and chairs. The leaves, much larger than the familiar American elm's, turn yellow in autumn. Many older specimens of this amazing tree are thriving around the state, including those by the Camden amphitheater and the two next to the Maine State Capitol's entryway, overlooking the Kennebec River. Not susceptible to Dutch elm disease. Prefers well-drained moist fertile soils. Z4-5. (#1 grafted, 5-7' plants)

4220 Camperdown Elm, $35.00



Malus Flowering Crabapples

In the last few years I have grown to appreciate this incredible tree. Actually I should say, this *group* of trees, for crabapples are almost infinitely varied in their size and form, their flowers, fragrance, fruit, and even their foliage. They vary from culinary to fruitless to wildlife varieties, from huge trees suited to parks to tiny trees for the patio; from rounded to upright, vase-shaped to wide-spreading to weeping; from lime green to deep red foliage; from brilliant white to pink to orange to red blooms. Give some thought to the space you intend to fill—the perfect selection will look great all year round.

I'm fortunate to have spent a great deal of time checking out specimens at a number of locations, my favorite being the Lyle Littlefield Garden on the University of Maine campus in Orono. This year's selections represent a cross section of current favorites. We'll be offering many more in coming years.

A common definition of crabapple is *trees of the genus Malus with fruit under 2" in diameter*. This includes North American and Asian species, and countless crosses. Crabapples prefer full sun and deep well-drained soils of 5.5-6.5 pH but they are quite forgiving and will thrive in many locations with a little TLC. They don't like to be drowned or starved for water, and they do need to be protected from borers, mice and deer (see planting guide). Keep pruning to a minimum, and allow each tree to assume its own unique form. Most bloom annually in May just prior to the lilacs and make excellent pollinators for any apple. (3½-6' trees)

Charlotte (*M. coronaria* var. *dasycalyx* 'Charlottae') Waukegan IL 1902. 20' x 20-25' Chance seedling of *M. coronaria*, the native crab of eastern U.S. Breathtaking even before bloom with its plump buds blushed faint pink and veined in red. Looks like a peppermint stick ice cream cone. In full bloom it takes on a peachy pink hue, with semi-double to double 1½" cupped whitish flowers with yellow stamens, 12-20 petals per bloom, each petal reverse still veined in red. Spectacular. The flowers have a wonderful subtle fragrance. A bowl of the fragrant greenish-yellow fruit will scent the whole room. Medium-sized rounded form, with a shaggy grey trunk and smooth silver branches like beech wood that give the tree an almost skeletal appearance in winter. Said to be disease susceptible, but not that I've seen. Late blooming. Z4. ❄

4035 Charlotte Crab, $15.00

Coralburst (*M. sieboldii* x op) Henry Ross introduction. Strongsville, OH, 1968. 8-10' x 12-15' A neat small nearly perfectly symmetrical floriferous Crab. Looks like a small upright shrub perched on top of a single straight trunk. Red buds followed by double blooms of 10 petals each. Very light pink petals, each with a red back. Light yellow-green spring foliage is quite visible, becoming an integral element in the overall effect—a unique and delightful combination of pink and light green. This is a tree you could plant right *in* your garden. ½" reddish-orange fruit. Blooms somewhat late in the season. Rarely requires any pruning. Patented variety. Z3. ❄

4039 Coralburst Crab, $17.00

Dolgo From seed collected by NE Hansen of *M.* x *robusta* in 1897 at the Imperial Botanical Gardens in St. Petersburg, Russia. Introduced in the U.S. in 1917. 35-40' x 25-30'. Classic flowering crab whose name means "long" in Russian. Large fragrant 2" pure white flowers bloom early. Brilliant red 1½" teardrop-shaped tart fruit ripens in summer and makes flavorful clear ruby-red jelly. Also useful for canning and pickling. Large vigorous tree consistently yields abundant crops. Exceptionally dependable pollinator for all apples. Disease resistant. Z2. ❄

4049 Dolgo Crab, $15.00

Donald Wyman Chance seedling. Arnold Arboretum, 1970. 20x30' Deep pink buds and large 2" single white flowers early in the season. The bloom is so intense, the tree looks like one massive flower. Beautiful medium-dense rounded and wide-spreading medium-sized tree with attractive glossy green foliage. Looks great when it has room to spread out. The shape alone is enough to recommend this cultivar. You can always spot a Donald Wyman in winter by its mass of very small bright red fruits which the birds keep in reserve until spring. 2001 winner of the Carey Award for Distinctive Plants for New England. Named in honor of America's great horticulturist. Largely disease-free, but said to be slightly susceptible to powdery mildew. Z4. ❄

4051 Donald Wyman Crab, $15.00

Klehm's Improved Bechtel (*M. ionensis* x op) 20x20' A seedling of *M. ioensis*, one of North America's three native crab species. Nurseryman Clyde Klehm discovered it early in the last century while on a date in a Chicago Park. The story goes that he marked the tree with a strip of lace torn from his girlfriend's pettycoat. (No aluminum tags on hand.) Large beautiful exceptionally fragrant double blooms, light pink with yellow stamens. Individual flowers have 30-35 petals, each edged in pink and veined in red. A single trunk with many slightly upright spreading branches forms a medium-sized somewhat vase-shaped beautifully rounded tree. Soft green foliage turns red in the fall. The squirrels will clean up the sparse 1" yellow fruit. One of the last to bloom each spring. Z4. ❄

4084 Klehms Improved Bechtel, $15.00

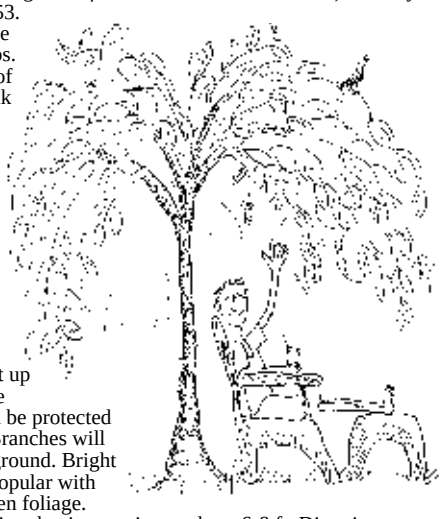
Liset (*M.* x *purpurea* 'Lemoinei' x *M. siebodii*) The Hague, Netherlands, 1938. 15x20' Bright crimson-red buds followed by single red-orange flowers, often considered the brightest and most red of any crab. Although not well-known, Liset shows up on every "Best Crabs" list. Once you see it, it's hard not to agree. This medium-sized tree has perfect open spreading horizontal form: not too open, not too dense, not too large but not too shrimpy. Dark red, ¾" round fruit. Purple branches, deep green foliage with a purple hue, young foliage the color of beet leaves. I grew beets around the base of my 'Liset' this year and the juxtaposition was quite wonderful. Virtually scab-immune and disease free. Z4. ❄

4091 Liset Crab, $15.00

Prince George (*M. ioensis* x *M. coronaria* var. *angustifolia*) Arnold Arboretum, MA, 1943. 15x15' Deep pink buds and double light pink rose-type flowers, each with an amazing 53-61 petals. Heavy spectacular annual bloom. Each fragrant flower looks—and smells—like a wonderful rose. Small open tree requires practically no pruning and is suited to even the smallest yard or garden. On top of all that, it's fruitless—no muss, no fuss! Some will love the lack of fruit production; others may consider it bourgeois. Regardless of your level of class consciousness, its sterility ensures a huge bloom every year. Always the last crab to flower each spring and always worth the wait. Virtually disease-free. Z4. ❄

4129 Prince Georges Crab, $15.00

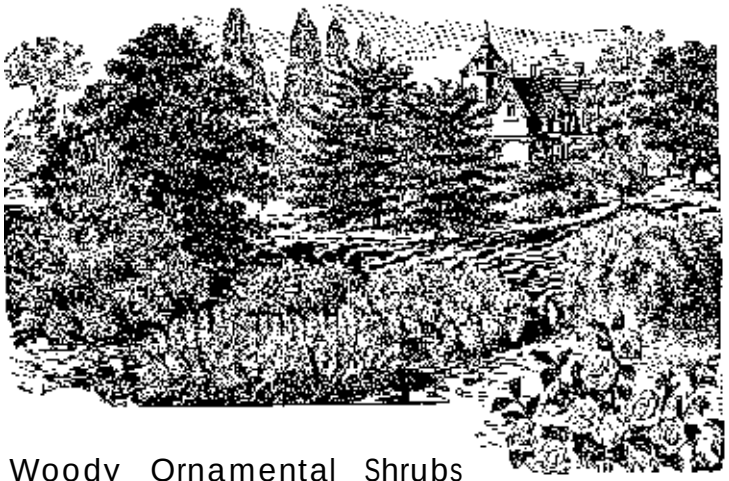
Red Jade (Chance seedling of *M. floribunda* 'Exzellenz Thiel') Brooklyn Botanic Garden, NY, 1953. 12-15' x 15-20' One of the finest of all weeping crabs. The spring combination of yellow-green foliage, pink buds and single white (actually faint pink) blossoms has a magical, almost surreal quality. Changing every day as more buds open and the greens and pinks merge and soften to white. Never garish in any way. Magnificent dense fine-branched weeper so perfectly formed that you could set up table and chairs under the umbrella-shaped tree and be protected from wind, sun or rain. Branches will drape all the way to the ground. Bright red ½" persistent fruit, popular with birds. Glossy vibrant green foliage. We recommend training it to begin weeping at about 6-8 ft. Directions included in our planting guide. Z4.



4136 Red Jade Crab, $17.00

Sargent's (*M. sargentii* var. *'Grants')* Arnold Arboretum, 1892. 8x15' Originally brought to the U.S. from Japan by one of America's most famous horticulturists, CS Sargent. The smallest crab species, densely and horizontally branched from the base with no tendency to develop a central leader. The branches curve and twist and turn, this way and that, like a large pretzel. Pink buds and profuse pure-white fragrant single flowers seem to bloom forever. Birds are crazy about its very small dark red-purple persistent fruit. Plant this crab by your winter birdwatching window. Often propagated by seed, so many strains exist. Our strain, which Phyllis Jantos originally bought 38 years ago for $1.50 at a WT Grants five-and-dime, blooms annually, unusual for a Sargent. Dark green foliage. Disease resistant. Z4. ❄

4150 Sargent's Crab, $15.00



Woody Ornamental Shrubs

Although many of these shrubs are multi-use plants, all are cultivated primarily for their flowers, fragrance, foliage or interesting form. They range from diminutive and delicate to large and breathtaking. Some are old standards and some are relatively unknown. We plant them to reduce the amount of lawn we feel compelled to mow, while increasing the beauty and wildlife cover that surrounds us. It's great to see that lawn shrinking a bit more every year!

Abeliophyllum distichum **White Forsythia** 4x4' A more reliable bloomer in the North than true forsythia. Vigorous multistemmed informal rounded shrub with clusters of white spicy-scented forsythia-like flowers in very early spring. Makes a good companion for true forsythia. Prefers sunny well-drained locations, but will tolerate most soils. Cut back to 6-12" every 3-4 years. Native to Korea. Z4. (6-12" heavy-rooted plants)

4225 White Forsythia, $7.00

Aristolochia durior **Dutchman's Pipe** 20-30' Also called **Pipe Vine**, a vigorous climber with large 4-10" heart-shaped dark green leaves. Can cover screened porch or trellis in 2-3 seasons. Sun or shade, thrives in shade. Likes well-drained soil with adequate moisture. Inconspicuous U-shaped tubular flowers in clusters of 1-3 with white base, mahogany lobes which look like a "Dutchman's Pipe." Native to eastern U.S. Z4. (2-yr #1 vines)

4235 Dutchman's Pipe, $9.00

Aronia arbutifolia **'Brilliantissima' Red Chokeberry** 6-10' x 3-5' In his book *Best of the Hardiest*, John Sabuco calls Red Chokeberry "one of our finest native landscape shrubs." Upright multistemmed form. Dense clusters of small but showy white flowers with red stamens. Dark green foliage turns spectacular crimson in the fall. Abundant persistent glossy bright red fruit birds will love. Spreads by suckers. Beautiful in masses, plantings and borders. Transplants easily. Adapted to many soils, wet or dry, but prefers moist and well-drained. Sun or partial shade. Can be trained into a small tree. Native eastern U.S. Z4. (6-12" heavy-rooted plants)

4240 Red Chokeberry, $8.00

A. melanocarpa **'Viking' Black Chokeberry** 4-6' x same. Compact rounded shrub suckers profusely to form colonies. Showy white blooms in late spring. Glossy green foliage all summer turns brilliant wine-red in fall. Attractive black berries may be palatable enough for fresh eating, but probably more suited to juice, jelly or our feathered friends. Its black fruit and glossy foliage distinguish *A. melanocarpa* from *A. arbutifolia*. Not particularly picky about where it grows. Adaptable to wet or dry areas, sun or partial shade. Viking is a larger-fruited better-tasting cultivar introduced in Sweden. Disease and insect free. Native eastern U.S. Z3. ❄ (1-2' plants)

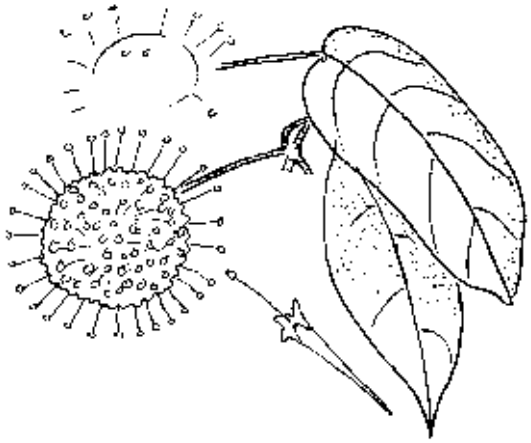
4243 Viking Black Chokeberry, $8.00

Campsis radicans **Common Trumpet Creeper** or **Trumpet Vine** 30-40' Extremely easy to grow, wildly vigorous deciduous climbing vine that will cover a stone wall, fence, arbor, even your whole house every summer. Incredibly showy orange-scarlet trumpet-shaped flowers, 2-3" long. If you like orange, you're in luck. Your hummingbirds will love them too. Not officially considered invasive, but will spread by seed, stolons and rooting branch tips. Remember Sleeping Beauty's castle? Prune severely every year. Prefers full sun. Grows in any, except permanently wet, soil. Native to the eastern U.S. Z4. (1 year medium vines)

4260 Trumpet Creeper, $8.00

Celastrus scandens **American Bittersweet** or **False Bittersweet** 20' or more. Some years ago Debbie Dinsmore of Branch Mills Flowers here in Palermo asked me to special-order several of these native vines. She relishes the orange berries for her holiday wreaths and other dried flower arrangements. Also quite beautiful right on the vine. (This is *not* the invasive bitterwseet—*C. orbiculatus*—that you should never grow!) Deep glossy summer foliage turns yellow-green in fall. Very vigorous climbing twining habit, will grow in nearly any soils although it does not like the driest sites. Male and female required for fruit. These are unsexed vines. Although some plants may have both male and female flowers, plant two or three plants to ensure fruit. Native eastern North America. Z3. (2 year #1 vines)

4268 American Bittersweet, $8.00



Cephalanthus occidentalis **Buttonbush** 6-10' x 8' The masses of buttonbush bordering the shores of Massachusetts' Sudbury River were in full bloom this past July as once again we followed Thoreau's "footsteps" in our kayaks. The spherical other-worldly-looking fragrant white flowers, up to 1" across, were crawling with honey bees. Flowers appear for 4-6 weeks in summer and look like a cross between "sputnik," an "eighth-grade Helium-atom science project," and "one of those hats Sun Ra wore during his intergalatic music concerts." They make interesting dried flowers. The loose rounded branchy shrubs with bright green foliage seem to be growing *in* the river. Plant beside your stream or pond, *in* your pond, or even on an old floating log. It will secure its roots to the muck below and feed the ducks with its seeds (nutlets) in the fall. Recommended for naturalizing. Native to eastern U.S., west to New Mexico. Z4. (18-24" plants)

4270 Buttonbush, $9.00

3-a[illegible]

x 4-6'. While lots of shrubs bloom in the spring, Clethra's beautiful heavenly scented white flowers appear on narrow 3-6" racemes for a month and a half in midsummer. Bees and butterflies love it. Erect rounded-oval habit, often suckering to form dense colonies. A good shrub to border streams and ponds. Glossy dark green foliage turns deep gold in fall. Very easy to grow. Slow growing. Prefers acid moist well-drained soils. Will tolerate salty coastal conditions. Full sun to shade. Pest free. Native from Maine to Florida. Z3. ❄ (1-2' plants)

4273 Summersweet, $9.00

***Comptonia peregrina* Sweetfern** 2-4' x spreading. The narrow 3-6" deeply incised dark green aromatic fern-like foliage is what gives Sweetfern its common name. The deciduous shrub with its unevenly mounded arching habit will sucker almost indefinitely, creating maintenance-free colonies. A magnificent no-frills alternative to the lawn. A near perfect ground cover. Will thrive in sandy gravelly sterile infertile soils, places when grass won't dare to tread. Dry or wet. Even boulder cracks and roadsides. Sun to partial shade. Eastern U.S. native. Z2. ❄ (1-2' plants)

4274 Sweetfern, $12.00

***Cornus amomum* 'Indigo' Silky Dogwood** 6-10' x same. Rounded rangy multistemmed shrub with attractive purple-red stems which are especially beautiful in winter. Valuable for naturalizing borders, streams and wetlands. Effective in masses or even windbreaks. Medium-fast growing. Yellowish-white flowers in late spring followed by sprigs of blue berries in midsummer that sit above the medium green foliage. Purple fall color. Deer will browse the stems and leaves and traveling songbirds and local game fowl will browse the berries. Prefers moist well-drained soils, although it is adaptable even to somewhat poorly drained wet locations. Does not like droughty spots. Sun or partial shade. Easy to transplant. Native eastern U.S. Generally listed as Z5 but probably hardier. Z4-5. ❄ (heavy-rooted transplants)

4277 Indigo Dogwood, $8.00

***C. sericea* 'Silver and Gold' Dogwood** 6-8' x 8-10' Mt. Cuba Center, 1987. Broad loosely rounded multistemmed shrub that spreads freely by stolons (underground stems) and forms excellent masses and borders. Interesting variegated foliage has a creamy-white edge. Bright yellow stems provide winter interest. 2-3" clusters of white flowers in spring followed by white berries that the birds will relieve you of as fast as they ripen. A perfect plant for swamps, streams and wetlands. Excellent for erosion control. Very adaptable to a range of soils and climates, but generally likes it wet wet wet. Sun or partial shade. Easy to transplant. To improve stem color, prune out older stems in the spring. Winner of the Styer award in 1990. Native eastern U.S. Z2. ❄ (6-12" heavy-rooted plants)

4281 Silver and Gold Dogwood, $8.00

***Corylus avellana* 'Contorta' Harry Lauder's Walking Stick** 6-12' x 15-20' Discovered in Frocester, Gloucestershire, England, 1863. A non-fruiting European filbert with a dense mounded form, grown for its contorted branches, leaves and catkins. Branching begins low and curves, twists and curls from the largest branch down to the tiniest twig. Even the drooping foliage is wrinkled and curled. It's a completely wonderful sight. Highly attractive year round, but especially in winter. Also used in flower arrangements, canes, handles and ornamental woodworking. Smoky dark grey—almost black—bark. Prefers well-drained loamy soil, full sun to partial shade. Remove root suckers as they appear. Z4–5. (1-2' grafted well-branched plants)

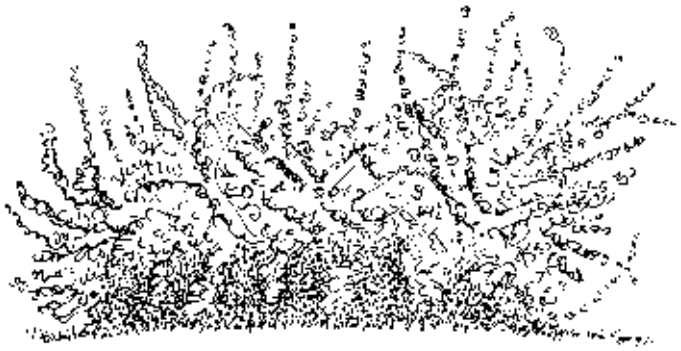
4283 Harry Lauder's Walking Stick, $30.00

***Cotinus coggygria* 'Royal Purple' Smokebush** 8-10' x same. Boskoop, Holland. Upright spreading shrub with velvety dark purple foliage and amazing purplish-pink inflorescences that look like large smoke puffs on top of the branches throughout summer. Often considered a Zone 5 plant, but reliably grows back and flowers each summer in Zone 4. Cut to the ground each fall for more vigorous and more brightly colored growth. Red-burgundy fall color. Disease free. Native southern Europe to China. Z4. (6-12" heavy-rooted plants)

4285 Royal Purple Smokebush, $8.00

***Euonymus alatus* 'Compactus' Burning Bush** 5-6' x same. Also called **Dwarf Winged Euonymus** or **Spindle Tree**. One of the finest all-around landscape plants, closely related to the native Burning Bush. Excellent in hedges, screens, foundation plantings or as a specimen. Dense compact rounded form. The corky ridged wings of bark on the stems are particularly interesting in winter. Brilliant burning-red fall color. No serious diseases and pest free. Very adaptable to many soils, sun or shade, prefers good drainage. Considered invasive in some regions, particularly farther south. Check with your local extension service for more information. Native of northeastern Asia to central China. Z4. (6-12" heavy-rooted plants)

4320 Compactus Burning Bush, $8.00



5-7' ***Forsythia* 'Vermont Sun'** University of Vermont, 1978. After many years of offering Northern Gold, we decided to try a new Forsythia this year. Michael Dirr considers Vermont Sun to be the most bud hardy Forsythia. Somewhat earlier, darker yellow and larger flowered than most *F.* x *ovata* cultivars (like Northern Gold and Northern Sun). Upright erect vase-shaped form. Full sun, moist or dry soils. Native of Manchuria. Although hardy to Zone 2, the flower buds are more realistically Z4. ❄ (1-2' plants)

4332 Vermont Sun Forsythia $8.00

***Fothergilla major* Large Fothergilla** 6-10' x same. Magnificent rounded multistemmed shrub with slender crooked branches becoming dense with maturity. Amazing small creamy-white honey-scented bottlebrush-shaped flowers (inflorescences) with long showy stamens. Blooms in spring, usually before the leaves appear. Attractive dark green to blue-green leathery leaves turn brilliant yellow, orange and scarlet, often on the same leaf, in fall. A great shrub year-round. Prefers moist well-drained peaty acidic soil but is very adaptable. Sun or partial shade. Disease- and pest-free. Native to southeastern U.S. Z4. (well-rooted #1 plants)

4358 Fothergilla, $8.00

***Hydrangea arborescens* 'Annabelle' Hydrangea** 3-5' x same. A major improvement over the old standard herbaceous hydrangea. A very upright yet rounded shrub, the earliest and most erect of the hydrangeas. Large clusters (up to 1') of showy white to faint-yellow flowers bloom in late June till September. Big 5-6" almost heart-shaped foliage. Grows fast, suckers freely, thrives in shade. Cut to the ground and fertilize lightly in late winter for stunning bloom next summer. Suited to perennial borders and naturalized gardens. A Pennsylvania Horticultural Society's Gold Medal Plant Award winner. Species native to eastern U.S. Z3. (#1 crowned plants)

4375 Annabelle Hydrangea, $12.00

***H. paniculata* 'Grandiflora' Pee Gee Hydrangea** 8' x 10-15' Large upright woody shrub with arching branches and very showy large conical double white flower-clusters that bloom July-August, turning pink-bronze in autumn. Small serrated yellow-green leaves illuminated with a fine yellow edge. Prefers good loamy moist well-drained soil in sun or partial shade, but difficult to kill; urban tolerant. Species native to North and South America and eastern Asia. Z4. ❄ (1-2' plants)

4380 Pee Gee Hydrangea, $10.00

***Ilex verticillata* Winterberry** A staple of the Maine landscape. Deciduous suckering holly with clusters of upright stems. Lustrous deep green leaves retain their color long after they're cut for decoration. Richly foliated, but open enough to display its interesting branching structure. Best known for its profusions of bright red 3/8" berries which stand out after the leaves have fallen and keep their color all winter, looking spectacular against the snow. Excellent fall wildlife forage plant. Tolerates dry conditions but prefers moist or wet acidic soil, even standing water. Sun or partial shade. No serious pests or diseases. Male and female plants required for fruit. Native from midwestern to eastern U.S. Z4. (6-12" heavy-rooted plants)

***I.v.* 'Red Sprite'** 3-5' x 4-8' Female plant. USDA introduction. Smaller plant than the straight species with an attractive low loose rounded form. Winner of the 1998 Cary Award for Distinctive Plants for New England. 'Jim Dandy' male required for fruit.

4398 Red Sprite Winterberry, $10.00

***I.v.* 'Jim Dandy'** 3-6' x 4-5' Male selection to pollinate 'Red Sprite' winterberry. One will pollinate several females.

4400 Jim Dandy Winterberry, $10.00

***I.v.* 'Winter Red'** 9x8' Female plant. Larger than 'Red Sprite'. Darker green foliage. Winner of the 1995 Styer Award. 'Southern Gentleman' male required for fruit.

4403 Winter Red Winterberry, $10.00

***I.v.* 'Southern Gentleman'** Male selection to pollinate 'Winter Red' winterberry. Don't be deceived by the name—it's hardy. One will pollinate several females. (18-24" plants)

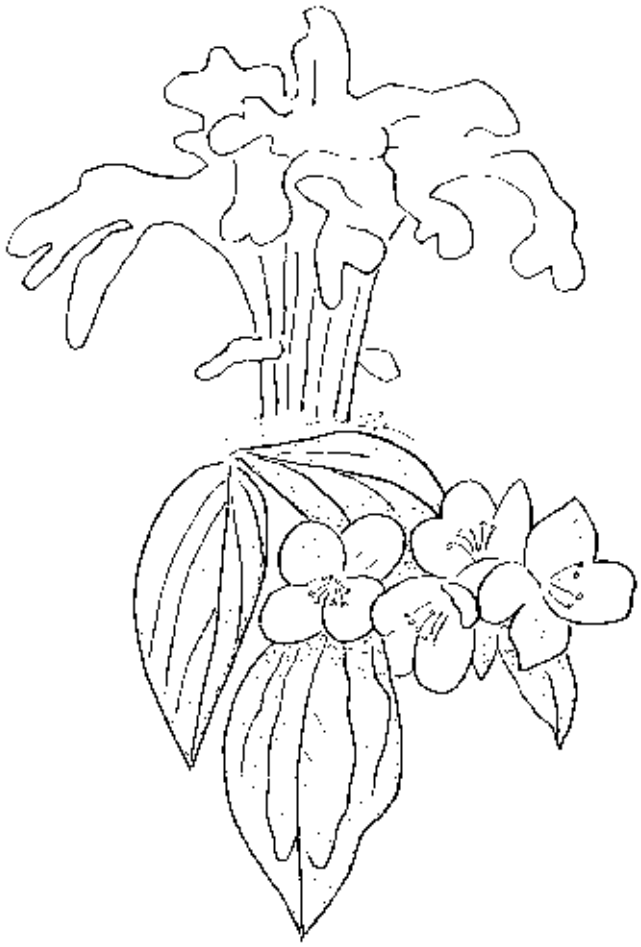
4405 Southern Gentleman Winterberry, $10.00

***Lonicera* x *brownii* Dropmore Scarlet Honeysuckle** 10-20' (*L. sempervirens* x *L. hirsuta*) Tall climbing honeysuckle developed by FL Skinner in Manitoba. Bright orange and scarlet tubular flowers bear profusely and tirelessly from early summer into late fall. Striking blue-green foliage on red stems. Great for fence or arbor. Easy to grow; generally free of insects and diseases. Flowers the first year. Considered the hardiest vine honeysuckle. Z3. ❄ (2-yr medium vines)

4450 Scarlet Honeysuckle, $8.00

***L. maximowiczii* var. *sachalinensis* Sakhalin Honeysuckle** 6-8' Though not well known, we highly recommend this dense rounded honeysuckle. Michael Dirr, widely esteemed horticulturist, calls it "the most beautiful honeysuckle" in the Arnold Arboretum's collection. Deep red 1/2" tubular flowers form small red fruit. Branches curve and twist in unusual patterns and the dark matte blue-green ovate foliage turns golden in fall. Eastern Asia. Z4. ❄ (heavy-rooted transplants)

4457 Sakhalin Honeysuckle, $9.00



***Philadelphus coronarius* Sweet Mockorange** 10x10' An old favorite that you don't see offered much anymore. We offer the straight species because it is the only mockorange that flowers reliably up here. Large coarse loosely upright arching fragrantly blooming shrub. Loved for its sweet alluring scent and its beautiful pure-white, slightly cupped, 4-petaled blossoms in spring, soon after lilacs fade. Each flower is accented by a spray of golden yellow anthers. The contrast of the flowers and deep dark blue-green foliage is lovely. Prefers moist rich well-drained soils, but will grow well in most conditions. Full sun to partial shade. Prune after flowering. Native to western Asia. Z4. (18-24" plants)

4530 Sweet Mockorange, $10.00

***Potentilla fruticosa* Potentilla** Also called **Shrubby Cinquefoil** or **Widdy**. A compact rounded to broadly rounded bushy shrub with showy five-petaled rose-like flowers. Flowers all summer long, beginning the first year. Excellent landscape plant with very small grey-green compound leaves, for shrub borders, low hedges, foundations. Full sun or partial shade. Loved by bees. Best in fertile moist well-drained soil, but tolerates poor dry soil. Unbelievably hardy. Native to Northern Hemisphere. Z2. (1-2' plants)

***P. f.* 'Abbotswood'** 2-3' x same. Extremely prolific pure white single flowers with light yellow stamens. Originated in Holland.

4574 Abbotswood, $8.50

***P. f.* 'Goldfinger'** 3x3' There is nothing subtle about Goldfinger. Brilliant golden-yellow single flowers. For those who like yellow, Goldfinger is really yellow! Z2.

4580 Goldfinger, $8.50

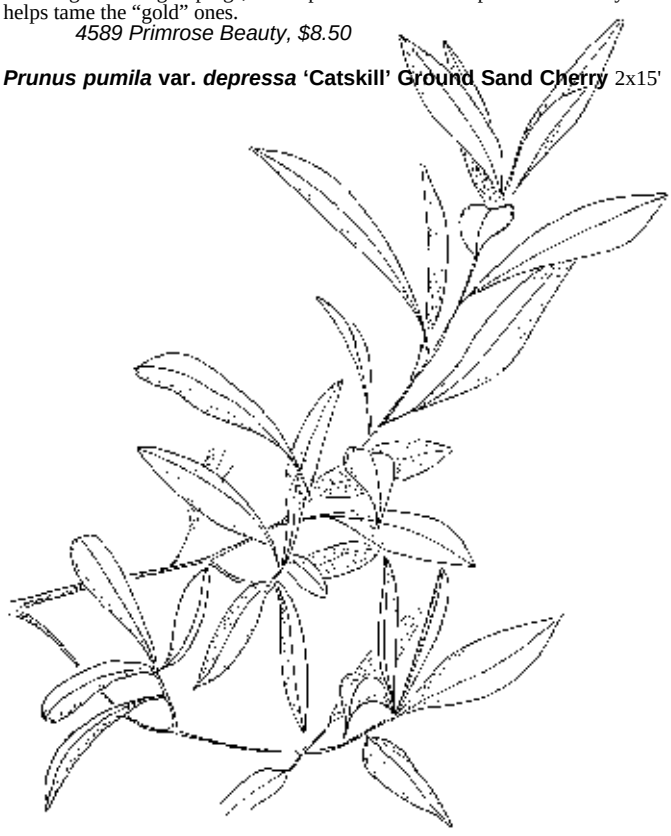
***P. f.* 'Pink Beauty'** 3x3' A recent University of Manitoba introduction. Soft-pink petals edged in a fainter pink. Although a frequent complaint about pink cultivars is that the color fades, in our experience, Pink Beauty holds its color extremely well. I've also read that good fertility will help reduce fading. ❄

4586 Pink Beauty, $8.50

***P. f.* 'Primrose Beauty'** 3x3' Faint yellow flowers with a slightly deeper yellow center and yellow stamens. From a distance the color appears creamy. This is a good choice if white is too white and the yellow cultivars are too garish. In groupings, it complements the white potentillas nicely and helps tame the "gold" ones.

4589 Primrose Beauty, $8.50

***Prunus pumila* var. *depressa* 'Catskill' Ground Sand Cherry** 2x15'



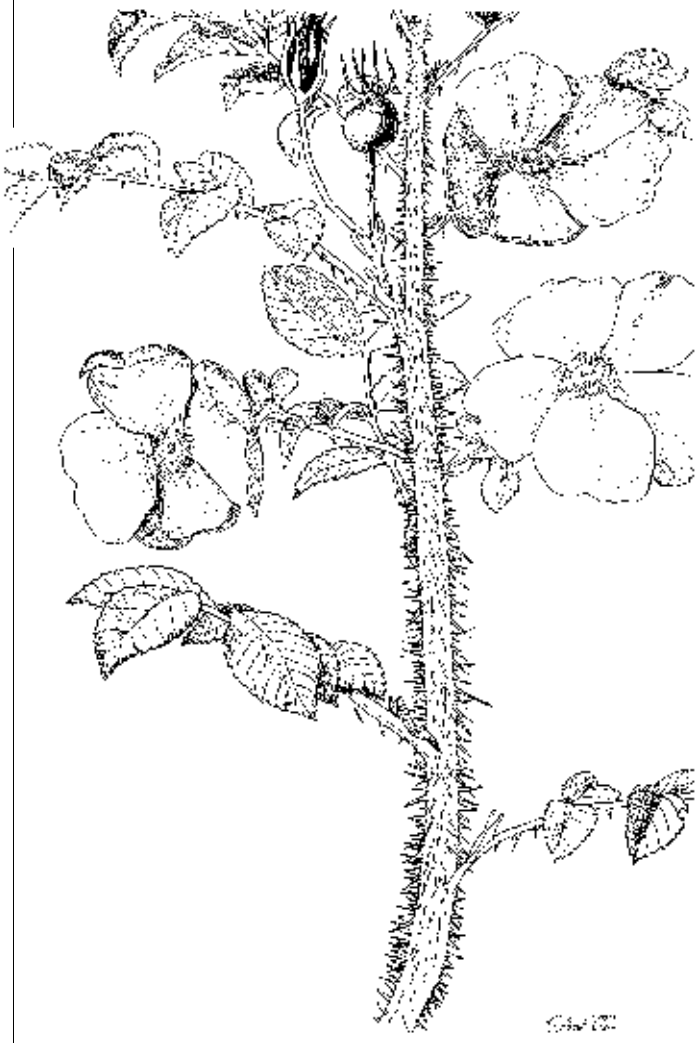
USDA introduction. Rare and unusual. Medium-fast-growing ground cover with a beautiful undulating mound-like form. Pinkish-white flowers in spring. Very narrow deep green foliage turns spectacular orange-red in fall. Edible fruits. A favorite plant of Steve Effner at Western Maine Woodies in Fryeburg. Steve has introduced us to many of the interesting native ornamentals that have appeared in the catalog during the past few years. Full sun to light shade. Tolerates poor soils. Native to eastern U.S. Surprise favorite in last year's catalog; this year we have a better supply of this wonderful plant. Z3. ❄ (well-rooted #1 transplants)

4600 Ground Sand Cherry, $12.00

Rosa **Rose** Exceedingly hardy, vigorous, disease- and pest-resistant, and significantly easier to grow than most named varieties, these roses need not be pampered; all are rugged and hard to kill, forming beautiful hedges. Fertilizers are generally unnecessary as these shrub roses are adaptable to many soil conditions. They do best in full sun, and prefer fertile soils but adapt to poor soils. Recommended as a solution for those who want roses but are tired of struggling with tender hybrid tea roses, or who associate roses with pests, disease and winterkill.

It is possible to grow roses organically in Maine. See Suzanne Verrier's pamphlet, *Growing Old-Fashioned and Hardy Roses Organically*, in the books section of our Seed catalog.

We focus on fragrance in our rose selections. If the description says very fragrant, it is! Each year we offer a different selection of the best varieties available. If your favorite is not on the list this year, we may be offering it in 2004. All roses are stocky well-rooted plants that we cut back to about 6" to encourage optimal growth and bloom.

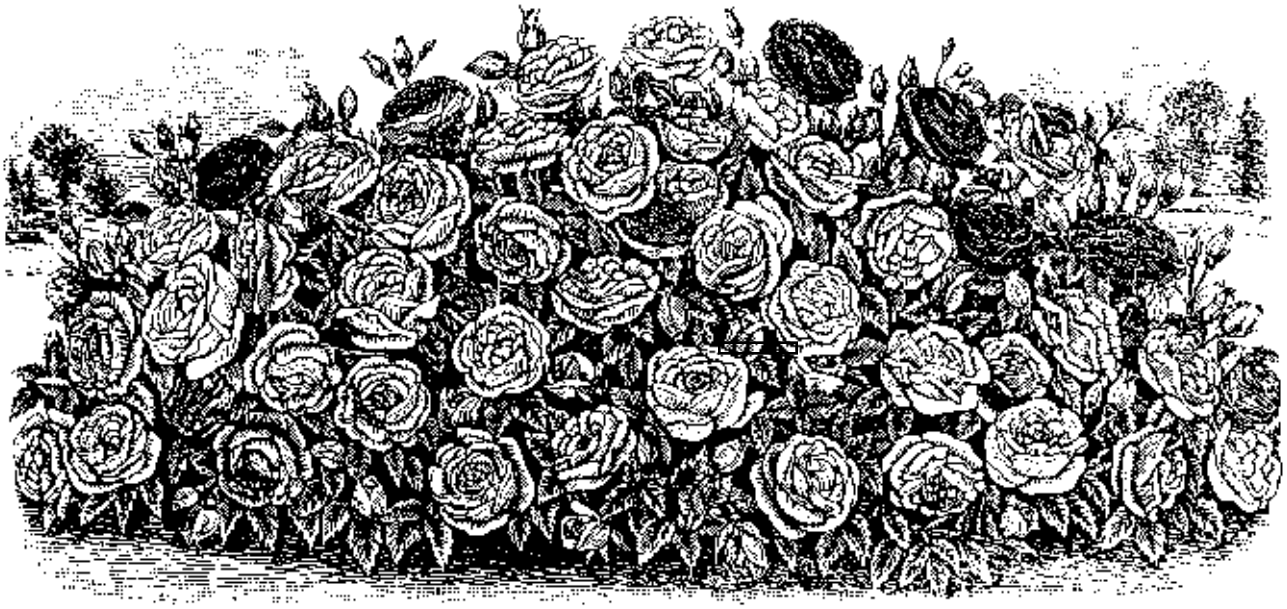


Rosa rugosa 4-6' x same. Also called **Japanese Rose** or **Beach Rose**. Vigorous spreading shrub. Flowers range from deep pink to white. Red hips up to 1" for jams, teas, and fresh eating right off the bush. Flowers used in traditional Chinese medicine to regulate *qi* and promote blood circulation. The dark green wrinkled, "rugose" leaves form a backdrop for the highly fragrant single flowers and the large edible hips which follow. Blooms form on both old and new wood, so pruning is unnecessary except to control size. Likes full sun, well-drained fertile soil with a pH of 6-7, but will grow in depleted soil and even sand. Tolerates salt, pollution, and drought; practically care-free. Native to China and Japan, and a common sight all along the New England coast. Z2. (2 yr well-rooted transplants)

4650 Rosa rugosa, bundle of 3 for $16.00

***R. r. alba* White Rugosa** 4-6' x same. Pink buds and large 2-3" pure white single flowers with cream-colored stamens. Fragrant, recurrent bloomer. Large orange hips. Orange and scarlet fall foliage color. Incredibly rugged; tolerates clay, muck, sand and salt. Disease resistant. Z4.

4652 Alba Rose, $9.00



***R.* 'Blanc Double de Coubert'** 5x4' *R. rugosa* x Sombreuil. Cochet-Cochet, France, 1892. Susan's favorite double white, and one of her all-time favorite roses, has recurrent blooms with lush fragrance. Some doubles are fluffy, but Blanc Double's large (2½-3") blossoms are creamy and substantial, almost as if they were carved out of snow-white ivory. Begins blooming in June and continues all summer. Infrequent hips. Attractive shiny dark green foliage. Good fall color. Healthy open vigorous shrub. Z3.

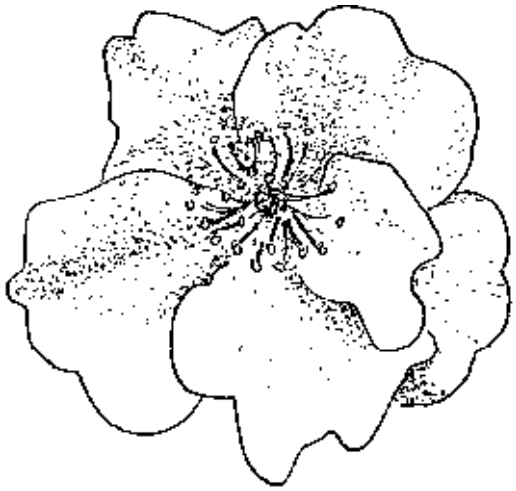
4654 Blanc Double de Coubert Rose, $9.00

***R.* 'Dart's Dash'** 4x5'. Darthuis Nursery, Netherlands. Date unknown. Semi-double (12-16 petals) very large 3-4" crimson-purple flowers fill the air with a lemony scent that I love. Blooms all summer and into fall. Somewhat similar to Hansa but more compact and longer blooming. Terrific fall display of beautiful large orange-red edible hips. Bright green disease-resistant foliage turns orange in the fall. Z4.

4658 Dart's Dash Rose, $9.00

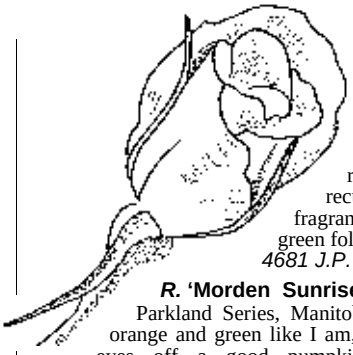
***R.* 'George Vancouver'** 2½ x 2'. [*R. kordesii* x (Champlain x *R. kordesii* x Red Dawn x Suzanne x New Dawn x *R. laxa* x *R. spinosissima*)], 1994. A relatively small shrub and a very heavy bloomer of 2" double (24-petaled) flowers. Deep red buds open fuchsia-red and gradually soften to pink. Blooms until frost. Rich green disease-resistant foliage. Fall display of prolific red hips. Vancouver, the 18th century Pacific coast explorer, also had a somewhat more well-known island named in his honor. Z3.

4659 George Vancouver Rose, $9.00



***R.* 'Golden Wings'** 4-6' [Soeur Therese x (*R. spinosissima altaica* x Ormiston Roy)]. Shepherd introduction, USA, 1956. Long deep yellow buds open to light yellow petals with deeper yellow centers and contrasting burnt-orange-yellow stamens. The large fragrant 4" single blooms are borne in profuse clusters. Begins flowering early and continues all summer. Upright vigorous form. Showy orange hips in fall. Winner of the American Rose Society National Gold Medal Certificate in 1958. Z4.

4660 Golden Wings Rose, $9.00



***R.* 'J.P. Connell'** 4x3' Arthur Bell x o.p. seedling of Von Scharnhorst. Explorer Series, Canada, 1987. Large yellow buds remain a beautiful yellow as they expand and finally open, then fade to a creamy apricot-tinged white, revealing their stiff golden stamens. The recurrent fully double blooms are intensely fragrant. Dense upright form with glossy rich green foliage. Disease resistant. Z3.

4681 J.P. Connell Rose, $9.00

***R.* 'Morden Sunrise'** 3x3' Sunsprite x unnamed seedling. Parkland Series, Manitoba, Canada, 2000. If you're a fool for orange and green like I am, you'll love this flower. I can't take my eyes off a good pumpkin patch in October either. Creamy orange-yellow buds open to semi-double yellow-orange flowers with orange stamens. The strongly fragrant flowers mature to deeper oranges, yellows and finally a creamy yellow-white. The low-growing shrub blooms all summer on canes that turn reddish brown in winter. Resistant to blackspot. Z3.

4689 Morden Sunrise Rose, $12.00

***R.* 'Seven Sisters'** 10-15' x 4' (*R. multiflora* 'Platyphylla') Japan, 1817. Clusters of seven perfectly shaped and tightly petaled petite fragrant 1-2" double flowers, like little frilly buttons, blooming simultaneuously in seven different colors from creamy white to various pinks to reds to crimson. It's like having an entire rose garden on one bush. Blooms most of July up here. A strong climber that can also be used as a ground cover or a rambler. Large dark green foliage. Covered with tiny red hips in fall. Z4.

4695 Seven Sisters Rose, $9.00

***R.* 'Therese Bugnet'** 6x4' [(*R. acicularis* x *R. kamtchatica*) x (*R. amblyotis* x *R. rugosa plena* (x Betty Bland))] Alberta, Canada, 1950. Vigorous upright vase-shaped plant. Extremely fragrant large 3-4" double soft lilac-pink flowers that have an informal "old rose" look. Blooms in late spring and fall with some repeats all summer. Long narrow grey-green foliage turns red in fall. Red canes look particularly beautiful in the snow. Disease resistant. Z3.

4700 Therese Bugnet Rose, $9.00

***R.* 'William Baffin'** 7-9' [*R. kordesii* seedling x (Red Dawn x Suzanne)]. Explorer Series, Canada, 1983. Spectacular upright slightly arching long flexible canes suitable for a tall hedge or arbor. Prolific 2-3" semi-double luminous deep "strawberry ice cream-pink" flowers with bright yellow stamens bloom continuously. Vigorous and disease resistant. Can be left on trellis all winter in most locations. Glossy foliage. Light fragrance. Small red-orange hips. Z3.

Syringa **Lilac** is known nearly everywhere by some variation of the Persian word *lilak* (meaning 'bluish'), but lilacs actually come in colors ranging from brilliant white to pink to red to every conceivable shade of purple and even blue. From small shrubs to large shrubs and trees, compact vase-shaped specimens to huge rounded spreading masses, only the crabapple offers greater selection among ornamental woody plants. Twenty-three species make up the genus *Syringa*, two of which are native to the limestone mountains of southeastern Europe, while the rest are native to the temperate Far East. First brought to America over three hundred years ago by French Jesuit missionaries, there are ancient specimens on Michigan's Mackinac Islands with trunks nearly two feet in diameter.

Excellent singly or in hedges. Deep green glossy heart-shaped foliage looks good from spring through fall. Intensely fragrant blooms in May over a period of several weeks.

Lilacs are adaptable, easy to grow and practically maintenance-free. Plant them in a well-drained location in moderately rich soil. Sandy gravelly loam is perfect. They prefer sun at least two-thirds of the day. We suggest planting them with a shovelful of lime. Add another shovelful of lime every three years. A yearly mulch of manure or compost will encourage spectacular annual blooming. Prune off a quarter of the new suckers and oldest growth each year and keep them trimmed down to an attractive height. No need to cut off spent flowers.

As with roses and crabapples, we vary our list each year to give you a wide selection over the course of time. If you have suggestions for cultivars you'd like us to offer, please let us know. The Lyle Littlefield Garden remains the best place in Maine to see lilacs in bloom. If words can't do it for you, go up to Orono next May. Many of the varieties we sell are there. (See #**4212** for Tree Lilac.)

S. vulgaris **Common Purple Lilac** 12-15' x same. A mass of medium-light purple blooms every year. A magnificent New England sight for nearly 400 years. Last May a nursery friend looked out my living room window and thought I had some fancy new cultivar. " Nope," I said, "Just the good old common purple." Never a disappointment. Even the branches broken by last winter's heavy wet snow bloomed this year! Suckers freely, the best lilac for a spreading hedge. Z2. (6-12" heavy-rooted plants)

4790 Common Purple Lilac, $9.25

S. v. **'Albert F Holden'** 7x8' Sarah Sands x Reaumur. John Fiala introduction, 1981. Deep purple buds followed by fragrant showy two-toned blooms, deep blue-purple backed by a light silver-lilac reverse. Each floret looks edged in silver. From a distance the entire upright rounded shrub with its loosely open panicles appears to shimmer in the sun. Unusual and exceptionally nice. Named for a member of one of America's great horticultural families who founded the Holden Arboretum in Kirtland, OH. Z3. ❄ (heavy-rooted transplants)

4795 Albert F Holden Lilac, $9.25

S. v. **'Charles Joly'** 10x10' Victor Lemoine et Fils introduction, Nancy, France, 1896. Purple buds open into highly fragrant double reddish-magenta flowers on somewhat narrow 4-6" moderately loose panicles. My notes call it a bright rosy-pink-purple. Lighter and redder than most of the standard varieties. Upright habit with some suckering. Z3. ❄ (heavy-rooted transplants)

4800 Charles Joly Lilac, $9.25

S. v. 'Krasavitsa Moskvy' 12x8' N237 'Belle de Nancy' x 'I.V. Mitchurin'. Leonid Kolesnikov introduction, Russia, 1974. Often known here as **Beauty of Moscow**. Dazzling pearly lavender-pink buds open to double delicate white flowers shaded with light pink. As we toured his nursery, grower Jamie Greager commented, "I love Beauty of Moscow; it's one of my favorites." John Fiala describes them as "excellent in every way" in his book on lilacs. Considered one of the best creations by one of the master hybridizers of the 20th century. Prolific vigorous upright plant. Z3. ❄ (heavy-rooted transplants)

4833 Krasavitsa Moskvy Lilac, $9.25

S. v. **'Ludwig Spaeth'** 10-12' x same. ('Andenken an Ludwig Späth') Späth Nursery, Berlin, 1883. Ludwig Spaeth's deep rich purple flowers are always a knock-out. Dark, yes, but never so dark that the color becomes flat and the highlights lost. This is a magnificent purple. Although I hesitate to use the word red, there is enough red in the purple to give it a regal look. Single deep purple flowers on large upright spires. Upright growth habit. Suckers profusely—an excellent hedge plant. Some say the newer cultivars are superior but I don't see it. Still a must for every yard! Z3. ❄ (heavy-rooted transplants)

4837 Ludwig Spaeth Lilac, $9.25

S. v. **'Montaigne'** 10x10' Victor Lemoine et Fils Introduction, Nancy France, 1907. Although the overall impression Montaigne gives is a soft pink, each panicle is multishaded, with its individual florets ranging from light pink to white to light purplish-blue. Holds its clusters of large double blooms upright like candles. Upright vase-shaped form. Long stems make this a good choice for cut flowers. Z3 ❄ (heavy-rooted transplants)

4846 Montaigne Lilac, $9.25

S. v. **'President Lincoln'** 10x10' ('Alba Virginalis' x op) John Dunbar introduction, Rochester, NY, 1916. Although the name 'lilac' means 'bluish' in Persian, and the native lilacs of Romania and Serbia have blue genes, so to speak, finding a true blue lilac has proved an difficult task. Although other bluer cultivars have been introduced, I like President Lincoln's very showy exceptionally fragrant single light lavender-blue blooms. Especially seen in combination with other cultivars, this lilac is a beautiful blue. According to Jack Alexander, curator of the Arnold Arboretum's huge lilac collection, Lincoln also has a "high degree of fragrance." Our 2002 lilac smell tests corroborated Jack's findings. Vigorous—some say rampant—upright form, will spread from suckers. Z3. (heavy-rooted transplants)

4858 President Lincoln Lilac, $9.25

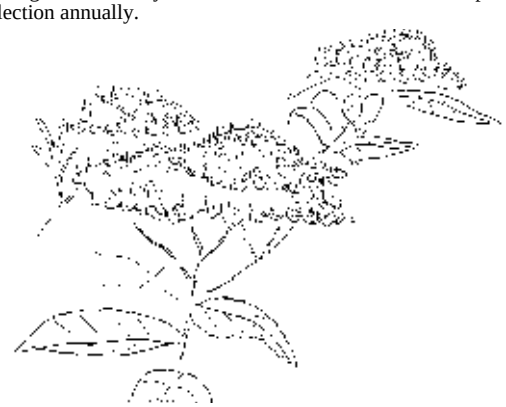
S. **x** ***chinensis*** **'Saugeana' Red Chinese Lilac** 10x20' (*S. laciniata* x *S. v.*) John C. Loudon introduction, 1885. For two years running this has been my favorite at the Arnold Arboretum's Lilac Sunday. Large graceful wide broad-spreading round-topped many-stemmed vase-shaped shrub with arching branches. Covered with fragrant purply-pinkish-red blossoms. Originally an accidental cross discovered in the Botanic Garden at Rouen, France, in 1777, *S.* x *chinensis* differs both in form and flower from the *vulgaris* types. Blooms are smaller, more delicate and more profuse. The red flowering 'Saugeana' is the best known of this group of crosses between the Chinese, *S. laciniata*, and the standard European *S. vulgaris.* Z3. (heavy-rooted transplants)

4877 Red Chinese Lilac, $9.25

***Salix purpurea* 'Nana' Blue Leaf Arctic Willow** 3-5' x 3-6' Selection of Purpleosier Willow. Medium-sized finely branched rounded shrub with fine-textured blue foliage and purplish twigs in winter. Long cultivated and used for basket making. Excellent bank or hedge plant, especially in wet areas and along streams and ponds. Will sucker and layer and form a dense mat. If it gets too overgrown, cut it to the ground and it'll come back. Native from Europe to North Africa to Japan. Z3. ❄ (1-2' plants)

4740 Blue Leaf Arctic Willow, $8.00

***Spiræa* Spirea** includes nearly 100 species of deciduous shrubs native to the northern hemisphere, all with profuse and often very showy small white, pink or red flowers, arranged in flat or round clusters or in pyramidal spikes. Varying in form and size, spireas are very adaptable, thriving in most soils with a full to partially sunny exposure and average moisture. Two well-known natives are Meadowsweet (*S. latifolia*) and Hardhack (*S. tomentosa*). Spring flowering species bloom on last season's growth. Prune off some of the growth in early spring to increase the flower cluster size. The summer flowering species bloom on this year's growth and usually require no pruning at all. Each year we offer a few of our favorite spireas, varying our selection annually.



***S.* x *bumalda* 'Anthony Waterer'** 4x6' A chest-high, rather dense, rounded but irregular shrub covered with large intricate, 4-6" flat-topped vibrant carmine-pink blooms each bristling with a thousand tiny stamens. In spring and summer the whole plant is also tipped with attractive new ruddy-pink leaves that neither clash with nor obscure the bloom. As the foliage matures it becomes blue-green and finally reddish-purple in the fall. Suckering makes it a good hedge and bank plant. Also looks great in the garden. Noted up here where it's cooler for its long bloom season. My favorite spirea. Tolerates all but wet soils. Prefers full sun. Z4. (9-18" heavy-rooted plants)

4750 Anthony Waterer Spirea, $8.00

***S.* 'Goldmound'** 2-3' x 2-3' (*S. japonica* var. alpina x *S. bumalda* 'Goldflame') W.H. Perron introduction, Quebec, Canada, 1980. Low mounded bushy form with small outstanding golden yellow foliage. Holds its yellow color all summer much better than Goldflame. Pink flowers in late June into July. Recommended for perennial and shrub borders. At its best in northern areas. Prefers full sun. Z3. (6-12" heavy-rooted plants)

4758 Goldmound Spirea, $8.00

***S.* x *vanhouttei (S. trilobata* x *S. cantoniensis)* Vanhoutte** 5-7' x 10-12' A spectacular fountain of pure white flowers in May on long arching branches. The epitome of the vase-shaped shrub. As bright as new spring snow on a sunny day. Each dense corymb is like a little bridal bouquet: watch out: seeing one of these in bloom might make you want to get hitched. Until I got to know the spireas in their infinite variations, this is the one I always thought of when anyone mentioned the name. The same may be true for you. Dark blue-green foliage. Orange-red fall color. Extremely rugged. Z3. (18-24" plants)

4770 Vanhoutte Spirea, $8.00

4790-4877 ***Syringa* Lilacs** on page 30.

***Viburnum lantana* x *V. rhytidophyllum* 'Emerald Triumph' Viburnum** 5-6' x same. U Minn Landscape Arboretum. A fast-growing upright slightly spreading shrub with a soft magical appearance and uniquely fragrant creamy-white flat-topped flower clusters. Blooms first in late spring and then blooms again later in the summer. When I visited grower Logan Johnston to see 'Emerald Triumph', his comment was, "The smell is worth the price of admission—nothing like it." Furry foliage and soft pastel-colored pubescent stems. Considered an excellent source of butterfly and bee forage. The birds will clean up the black fruit in the fall. Excellent in groupings or as a specimen. At Logan's they looked great planted close to one another. Easy to transplant. Sun or partial shade. Prefers decent well-drained soils but can handle dry conditions better than other Viburnums. No serious pests or disease. *V. lantana* native to Europe and western Asia; *V. rhytidophyllum* native to China. Z4. (1-2' plants)

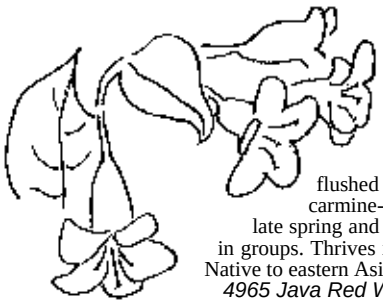
4943 Emerald Triumph Viburnum, $9.25

***V. lentago* Nannyberry** 8-30' x 10-12' Also called **Wild Raisin**, **Black Haw** or **Sheepberry**. Outstanding large open upright vase-shaped suckering shrub or small tree. Large clusters of fragrant white flowers in spring. 1/2" edible oval berries turn from green to yellow to red to blue-black raisins, available to birds, hikers and skiers all winter. Shiny foliage turns purplish red in fall. Sun or light shade, moist or dry, acid soils. The names Nannyberry and Sheepberry refer to the smell of the fruit. Recommended for naturalizing landscapes, bird and wildlife habitat, screens and borders. Native to eastern U.S. and Canada. Z2. (1-2' plants)

4950 Nannyberry Viburnum, $8.00

***V. opulus* 'Roseum' Common Snowball Viburnum,** 10-12' x same. Also called **Guelder Rose** or **European Snowball**. Extremely showy large double snowball-like white flowers in spring remind you how glad you are that winter is really over. Bears profusely enough to have one heck of a snowball fight. Large coarse old-fashioned rounded habit. Dark green three-lobed maple-like foliage. Plenty of bright red berries for the birds. Excellent in borders. Adaptable to a wide range of soils but is happy in wet and even boggy spots. Flowers best in full sun. Native from Europe to Siberia. Z3. (1-2' plants)

4959 Snowball Viburnum, $8.00

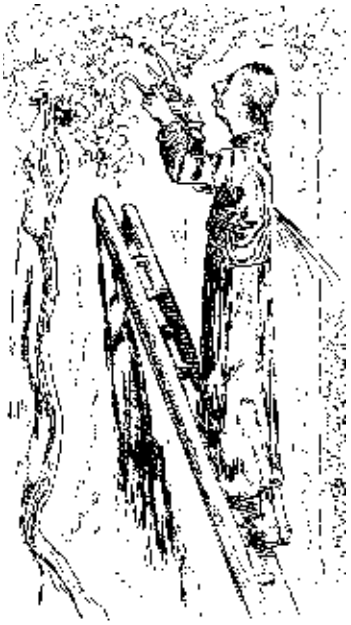


***Weigela florida* 'Java Red' Weigela** 3-4' x 4-5' Every spring I look forward to my neighbor Elberton Glidden's beautiful weigela, flowering at the base of an enomous spruce tree right by the side of the road. It's as reliable as the mosquitoes and a lot more welcome! Compact dense rounded form and deep green foliage flushed with red. The flower buds are carmine-red, opening to dark pink blossoms in late spring and early summer. Excellent in borders and in groups. Thrives in most soil conditions, city or country. Native to eastern Asia. Z4. (6-12" heavy-rooted plants)

4965 Java Red Weigela, $8.00

***Wisteria macrostachya* 'Aunt Dee' Wisteria** up to 50' (Species also called **Kentucky Wisteria**.) Magnificent twining vine with pinnate leaves for pillars, trellises, arbors, walls, even trees. Long 12" racemes of lilac-purple lightly fragrant flowers in late spring or early summer look almost like bunches of lavender grapes hanging from an arbor. Bean-like smooth green seed pods to 4" long. Prefers full sun in moderately fertile, well-drained soil. May need protection in Zone 4 but has even been known to flower in Z3. Native of southeastern U.S. (2-yr. medium vines)

4985 Aunt Dee Wisteria, $9.00



Tender Summer Bulbs

In our climate, these tender spring-planted summer-blooming bulbs, corms and tubers will not survive the winter outdoors. You may dig them up in the fall after foliage dies, dry them and gently brush off soil and debris, store somewhere dark and cool (40-50˚) for the winter in a medium like dry peat or sawdust, and then replant in spring. Or grow them in pots and relocate as the weather dictates. Or treat them as annuals and compost them at the end of the season.

Acidanthera murielæ
Fragrant Gladiolus
or **Ethiopian Gladiolus**
produces sword-like foliage topped by wonderfully scented star-shaped 2" white flowers with mahogany-brown centers on arching stems. Useful as a garden or cutflower. 24" tall. Culture like gladiolus.

***6001**: 10/$2.50; **6002**: 20/$4.50; **6003**: 50/$10.25*

Anemone coronaria **De Caen mix Anemone** or **Windflower**
Charming single flowers 1-3" wide are dark purple-blue, red, rose, or white and appear in early summer. Good for borders, containers and for cutting. 8-10" tall. Soak knobby tubers in water 24 hours before planting in early spring, 1-2" deep, 4-8" apart. Anemones enjoy full sun and light sandy soil but must be kept moist during the growing season.

***6011**: 10/$2.70;*
***6012**: 20/$4.70;*
***6013**: 50/$10.75*

Begonia* x *tuberhybrida **Tuberous Begonia** Lush textures, intense colors and a tropical aura make this tender temperamental plant well worth the trouble. Velvety flowers bloom all summer, drooping languidly amidst red-tinted foliage. Excellent bedding or container plants. Best in a cool spot with lots of indirect sunlight and air circulation. Moist but not soggy fertile soil. Plant outside, concave side up, 1/2-1" deep and 12-15" apart when night temperatures rise above 50˚ or, for a longer season, start indoors and plant out later. Pinch back to encourage more blooms. The Camellia is Multiflora type and the Hanging is, of course, Pendulous. These are 1 1/2-2" tubers at bargain prices.

Pink Double Camellia 12" tall.
***6021**: 2/$2.40; **6022**: 4/$4.30; **6023**: 8/$8.20*

Scarlet Double Camellia 12" tall.
***6031**: 2/$2.40; **6032**: 4/$4.30; **6033**: 8/$8.20*

Rosebud Picotee Double Camellia White with pink edging. 12" tall.
***6041**: 2/$2.85; **6042**: 4/$5.20; **6043**: 8/$9.90*

Orange Hanging Basket 2-3' long.
***6051**: 2/$2.85; **6052**: 4/$5.20; **6053**: 8/$9.85*

White Hanging Basket 2-3' long.
***6061**: 2/$2.85; **6062**: 4/$5.20; **6063**: 8/$9.85*

Yellow Hanging Basket 2-3' long.
***6071**: 2/$2.85; **6072**: 4/$5.20; **6073**: 8/$9.85*

Crocosmia* x *crocosmiiflora **'Lucifer'** makes an attractive garden flower or long-lasting cutflower. Midsummer sprays of bright red flowers opening from bottom to top of curving flower stalks look like bursts of flame above their gladiolus-like foliage. "Lucifer" means "light-bearing" and refers to the blossoms looking like lighted matches. Grows well in pots. 24-36" tall. Plant 3" deep, 3" apart in moist, well-drained soil.
***6081**: 5/$3.60; **6082**: 10/$6.50; **6083**: 25/$15.30*

Dahlia Bushy bedding plant or cutflower producer blooms from midsummer until frost. Native to hot parts of the Americas and first developed as a food crop, ornamental dahlias are descended from years of breeding and hybridizing *D. pinnata* and *D. juarezi.* Tolerant of full sun to light shade, they need 3-4 hours per day of direct sun. Plant 3-4" deep, 12-24" apart after danger of frost is past. Our grower plants his the same time as his peas, and reports that some foliage was killed by frost for the first time in 30 years last spring but the tubers came back fine. I hesitate to recommend such early planting in Maine, but they benefit from an early start. Dahlias often need staking, but close plantings can support each other. Dahlia blooms are susceptible to insect damage, especially in the bud stage. Tarnish plant bugs, leaf hoppers and thrips are all suspect. Think out a control program ahead of time. Keeping the flowers picked keeps some pests down.

Once again all our offerings come from Earl Waterman's Roadtown Dahlia Patch in Shutesbury, MA. These are large tubers.

Dahlia **Dazzle** Earl says, "This flower is a head-turner. If you like BIG, this is BIG, full foot above anything else." Yellow-orange 6-8" flowers on sturdy 6' plants that rarely tip over. One or two flowers work as part of a bouquet. You won't want to use many more unless you are making an arrangement for a space like the lobby of the Metropolitan Museum.
***6091**: 1/$2.60; **6092**: 3/$6.80; **6093**: 6/$12.50*

D. **Sunburst** Earl again: "If you can plant one plant—plant this." Flowers are a red-yellow combination. Under good conditions, red dominates; in drought, it's yellow tinged with red. 3-4" flowers good for drying and go well with almost anything. 36-42" tall plant.
***6101**: 1/$2.60; **6102**: 3/$6.80; **6103**: 6/$12.50*

D. **Earl's Short Purple Mix** Purple colors range from deep maroon to pinkish-lavender. Flowers, from 1-8", have full-petalled centers ("not dwarf bedding stuff") on plants only 1-2' tall.
***6111**: 2/$4.65; **6112**: 4/$7.75; **6113**: 8/$13.90*

D. **Earl's Tall Mix** This popular mix, now in its fifth year, includes pink, yellow, light purple, white, red and dark red 3-5" flowers, pompon and decorative (standard) styles. Plants 3-4' tall.
***6121**: 2/$4.50; **6122**: 4/$7.60; **6123**: 8/$13.70*

Gladiolus **Sword Lily** is a showy summer bloomer and excels as a cutflower; each stalk blooms for about a week, about 8 weeks after planting. Stagger plantings for flowers from summer to frost. Cut when 2-3 flowers have opened, taking care to spare the leaves which feed the developing corm. Plant corms 4-6" deep and 6" apart after the last spring frost. Hilling or staking may be needed if their sword-shaped foliage and 3-4' flower spikes get top heavy. Dig up the corms after the tops have died, discard the old one, clean the new one, dry, and store loose (no peat) in a cool dry place.

Thrips are a problem for glads, and infestations—indicated by yellowing and spotted foliage—are aggravated by water stress. Be prepared lest they devastate your plants and prevent flowering. Research a control program acceptable to you (possibilities include insecticidal soap, garlic, pyrethrum, or rotenone), have it on hand, and use it at the first sign of infestation.

Gladiolus bulbs are all topsize.

G. **'Jubilee'** bright orange.
***6131**: 10/$2.85; **6132**: 20/$4.90; **6133**: 50/$11.00*

G. **'Land O'Lakes'** ruffled white with lilac-blue edges.
***6141**: 10/$2.85; **6142**: 20/$4.90; **6143**: 50/$11.00*

G. **'May Bride'** white, very early.
***6151**: 10/$2.85; **6152**: 20/$4.90; **6153**: 50/$11.00*

G. **'Nova Lux'** rich yellow with a few red lines.
***6161**: 10/$2.85; **6162**: 20/$4.90; **6163**: 50/$11.00*

G. **'Oscar'** intense solid crimson.
***6171**: 10/$2.85; **6172**: 20/$4.90; **6173**: 50/$11.00*

G. **'Pink Friendship'** ruffled pink with yellow-white throat.
***6181**: 10/$2.85; **6182**: 20/$4.90; **6183**: 50/$11.00*

G. **'Violetta'** violet-blue, tall.
***6191**: 10/$2.85; **6192**: 20/$4.90; **6193**: 50/$11.00*

G. **'Wine and Roses'** light pink with red throat marking.
***6201**: 10/$2.85; **6202**: 20/$4.90; **6203**: 50/$11.00*

Large-Flowering Glad Mix topsize.
***6211**: 10/$2.40; **6212**: 20/$4.20; **6213**: 50/$9.50*

Ranunculus **Hybrids Mix** produces flowers of white, yellow, orange, pink, or red, resembling double buttercups from late spring into summer, for borders, pots, and cutting. Fern-like foliage. 12" tall. Before planting, soak tubers in water for several hours to several days. They need drainage, but respond well to lots of moisture. Set 2-4" deep, 6" apart, claw side down.
***6221**: 10/$3.50; **6222**: 20/$6.10; **6223**: 50/$13.75*

Herbaceous Perennial Plants

Most of the perennial plants we offer are hardy at least into Zone 4. USDA hardiness zone (chart on page 3) follows each description. The list is aphabetized by botanical names, in italics, followed by common names. Nearly all perennials appreciate a fall mulch and a sidedressing of compost or leaf mold in the spring. Many perennials take a year or more to establish roots before they bloom.

***Achillea* Yarrow** Rugged and adaptable genus, tolerates most conditions, is untroubled by pests and is a stand-out in heat and drought. Long-lasting flowers, from late June into August, excellent for fresh or dried arrangements, are 3-4" wide corymbs, flat-topped clusters of tiny flowers, atop 1' stalks with a strong spicy odor which attracts butterflies. Foliage is finely cut and attractive. Plant 12-24" apart in full sun to partial shade, well-drained soil. Z3.

***A. filipendulina* 'Coronation Gold'** was a chance seedling selected in England in 1952, has become a standard since. Golden mustardy-yellow flowers appear to crown each stalk which is decorated with silvery grey-green foliage. 30-36" tall.

***6231**: 1/$3.40; **6232**: 3/$8.70; **6233**: 6/$15.75*

***A. millefolium* 'Cerise Queen'** Flowers open a brilliant magenta-pink and gradually fade into a range of mauve-tinted shades of pink, lavender and ecru. Feathery foliage very finely cut and almost curly, holds its bright green lushness even in heat. Locally grown by Entwood Nursery in Burnham without chemical fertilizers, pesticides or herbicides. 20-30" tall. ❄

***6241**: 1/$3.40; **6242**: 3/$8.70; **6243**: 6/$15.60*

***Aconitum* English Monkshood** or **Friar's Cap** produces dense showy spikes of curious helmet-shaped or hooded flowers in late summer above elegant palmate foliage. Plant in a partially shaded cool and moist location for longest-lasting flowers. An excellent cutflower—cut when 1/3 to 1/2 the spike is in bloom. Grand delphinium-style blooms rarely need staking. I never tire of watching bumblebees climb under the hood and completely disappear into the flowers; eventually, they clamber back out and fly away. The entire plant is poisonous; wash your hands after handling or cutting. 36-40" tall. Plant 15-20" apart in moist soil. Z3.

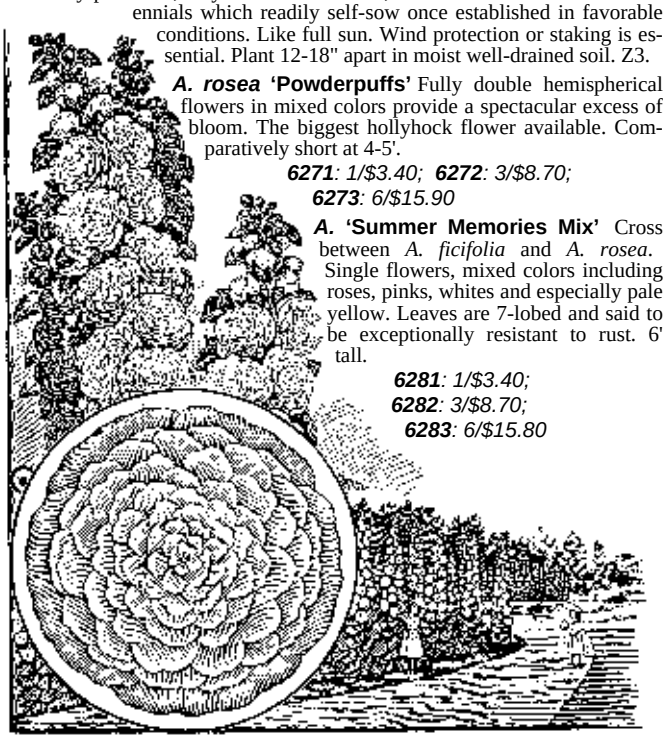
***A.* x *cammarum* Bicolor Monkshood** Well-branched habit, blue and white bicolor flowers.

***6251**: 1/$3.20; **6252**: 3/$8.00; **6253**: 6/$14.50*

***A. napellus* Monkshood** Deep violet-blue flowers.

***6261**: 1/$2.90; **6262**: 3/$7.50; **6263**: 6/$14.15*

***Alcea* Hollyhock** is associated with old-fashioned gardens. Our offerings illustrate the difference between **singles** and **doubles** in garden-talk. Single flowers have, yes, a single row of petals around their centers. Doubles have *many* rows of petals; when we say fully double we mean totally filled with petals. Hollyhocks produce tall spires of big round flowers for extended bloom through July and August. Their mixed colors range from white through the pinks into rose and maroon with an occasional yellow or salmon. Officially perennial, they can be short-lived, and are best cultivated as a biennials which readily self-sow once established in favorable conditions. Like full sun. Wind protection or staking is essential. Plant 12-18" apart in moist well-drained soil. Z3.



***A. rosea* 'Powderpuffs'** Fully double hemispherical flowers in mixed colors provide a spectacular excess of bloom. The biggest hollyhock flower available. Comparatively short at 4-5'.

***6271**: 1/$3.40; **6272**: 3/$8.70; **6273**: 6/$15.90*

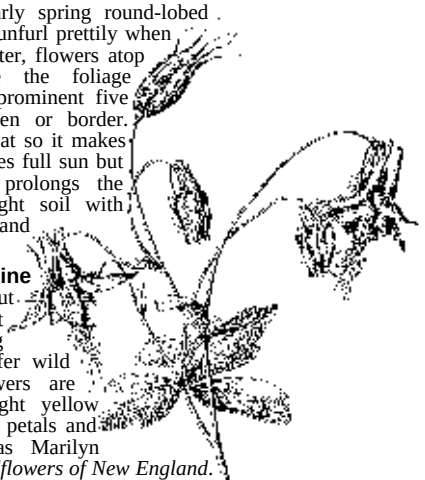
***A.* 'Summer Memories Mix'** Cross between *A. ficifolia* and *A. rosea*. Single flowers, mixed colors including roses, pinks, whites and especially pale yellow. Leaves are 7-lobed and said to be exceptionally resistant to rust. 6' tall.

***6281**: 1/$3.40; **6282**: 3/$8.70; **6283**: 6/$15.80*

***Allium senescens* 'Glaucum' Curly Chive** Gardeners are discovering what a pleasing plant this low-growing decorative allium is. Blooms in late summer, when many other plants are fading, with round blossom clusters that open dusky mauve pink and mature to pinkish-lavender, on upright stems 8-12" above the foliage. But my favorite aspect is its short swirling grey-green (glaucous) foliage which is attractive all summer but utterly enticing in the cold wet weather of early spring when it shines like curled hair lying on the ground. Clumps multiply gradually so you can give some to your friends after a few years. Easy to grow. Plant 6-8" apart in full sun to part shade, average-good soil. Locally grown at All Weather Farm in Thorndike. Z3. ❄

***6291**: 1/$3.40; **6292**: 3/$8.70; **6293**: 6/$15.75*

***Aquilegia* Columbine** In early spring round-lobed leaves form little stacks which unfurl prettily when little else is green. Not long after, flowers atop vertical stems dance above the foliage displaying their characteristic prominent five spurs. Good for cutting garden or border. Foliage dwindles in summer heat so it makes room for late-bloomers. Tolerates full sun but prefers partial shade which prolongs the flowering season. Plant in light soil with adequate humus, moisture and drainage. Z3.



***A. canadensis* Wild Columbine** seeds itself in my dooryard, but when a coworker told me that she hadn't seen one in a long time, I decided we should offer wild columbine. Spurred red flowers are highlighted by noticeable bright yellow stamens which hang below the petals and "give a jewel-like effect," as Marilyn Dwelley says in her *Spring Wildflowers of New England*. Smaller than the hybrids, about 12-24" tall, so plant about 8-12" apart. Nursery propagated from native plants.

***6301**: 1/$2.90; **6302**: 3/$7.50; **6303**: 6/$14.15*

***A.* 'McKana Giants'** The McKana strain, variously called 'Giants' or 'Hybrids,' an old British hybrid of uncertain parentage, combines the delights of the wild columbine habit with *big* flowers sporting *long* spurs and a bright *bold* assortment of colors. Both flowers and blooming period last longer than wild columbines. Plant 12-18" apart. 30-36" tall.

***6311**: 1/$3.00; **6312**: 3/$7.75; **6313**: 6/$14.75*

***Arisaema triphyllum* Jack-in-the-Pulpit** Several folks told me at our annual Tree Sale that they would like to see us carry this wildflower native to the eastern U.S. One or two compound leaves close to the ground, each with three leaflets frame an upright stem topped by a tannish-purple 3" long cuplike spathe (the pulpit) which contains and arches over the erect greenish-yellow spadix (Jack) and appears in midspring. It's a great pleasure, one I still remember, for the two- or three-year-old set to lift the flap and see Jack. Native Americans used the dried root medicinally, but calcium oxalate crystals in the fresh plant are intensely irritating. Easy to grow in moist woodsy soil with plenty of humus and shade. About 12" tall. Nursery propagated from native plants. Z4.

***6321**: 1/$2.90; **6322**: 3/$7.50; **6323**: 6/$14.00*

Artemisia is a large genus of aromatic herbs, named for the goddess Artemis, cultivated since ancient times for flavor, aroma, ritual and ornament. Densely hairy foliage makes many Artemisias appear silvery-white, especially in the moonlight. Very easy to grow—sometimes too easy; thrives in poor dry soil, full sun to part shade. Z4.

***A. absinthium* Wormwood** Folk remedy for delayed menses, fever, liver and gall bladder ailments. Bailey's 1900 *Cyclopedia of American Horticulture* says the extremely bitter leaves are "used in domestic medicine especially as a vermifuge. Wormwood tea is an odorous memory with every person who was reared in the country." Best known as the flavoring for absinthe liquors, now legal only when the toxic active ingredient, thujone, is removed. Silky-hairy silvery-grey finely cut aromatic foliage in tall stalks is covered with inconspicuous tiny yellow flowers in mid-late summer. Flowers and habit similar to Sweet Annie (*A. annua*), as are its prolific self-sowing tendencies. Good for historical interest, back of border, wild garden or accent. 3-6' tall. Plant 12-18" apart. ❄

***6331**: 1/$2.70; **6332**: 3/$7.00; **6333**: 6/$13.25*

***A. dracunculus* var. *sativa* 'Tarragon' French Tarragon** really is culinary tarragon, the flavoring with a hint of anise well known for its use with vinegar, salads, poultry and fish. Bushy, with long narrow grey-green leaves, looks like a small shrub in my border, where it thrived on drought conditions *again* last year. 18-40" tall. Full sun, good drainage and winter mulch.

***6341**: 1/$3.50; **6342**: 3/$9.00; **6343**: 6/$17.00*

***Aster* Starwort** or **Frost Flower** are familiar summer and fall wildflowers throughout the nation. This year's selections are all low to the ground, robust and easy to grow, and have excellent color and form. Flowers provide displays of great color in fall, attract butterflies and beneficial insects, and last long, long in the vase. Plant singly, group in the border, or naturalize in meadows or on banks. Cut back slightly in early-mid June to induce an abundance of 1½-2" rayed blooms from late August into October. Asters are at their peak when most plants have faded. Plant 12-18" apart in light moist humusy soil in full sun with good air circulation. Z3.

***A. dumosus* 'Professor Anton Kippenberg'** clear bright blue, 12-15".
***6351**: 1/$3.00; **6352**: 3/$7.75; **6353**: 6/$14.75*

***A. novae-angliae* 'Purple Dome'** deep purple flowers with an excellent compact habit. 18". ❄
***6361**: 1/$3.50; **6362**: 3/$9.00; **6363**: 6/$16.75*

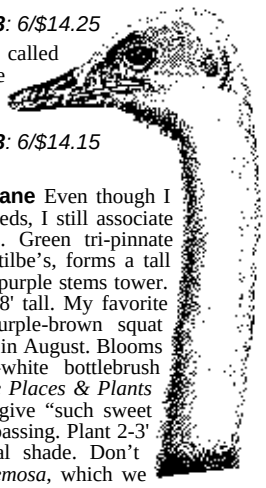
***A. novi-belgii* 'Alert'** deep crimson-red semi-double flowers in a mound 12-15" high.
***6371**: 1/$3.50; **6372**: 3/$9.00; **6373**: 6/$17.00*

***Astilbe* Feather Flower, Goatsbeard** or **False Spirea** lends a novel touch to the border but is easy to grow, hardy and long-lived. Long-lasting plumy feathery flowers are good for drying and provide a welcome contrast to more ordinary petaled blossoms. Elegant fern-like foliage forms an attractive clump all season and comes in a wide range of greens. Convention holds Astilbe to be a partial-shade plant that absolutely requires a moist humusy acid soil when grown in full sun. That's true in warmer areas, but in central Maine it seems to like full sun in a wide range of conditions. Blooms July and August. Stock has 2-3 "eyes." Plant 12-18" apart and divide clumps every few years. Z3.

***A. arendsii* 'Cattleya'** Tall elegant large open panicles are bright rose pink, good for bouquets, mid-late season, 36-40" tall.
***6381**: 1/$2.90; **6382**: 3/$7.50; **6383**: 6/$14.15*

***A. a.* 'Fanal'** Dark red flowers bloom early to midseason, the earliest red to bloom. Bronze foliage. 18-24" tall.
***6391**: 1/$2.90; **6392**: 3/$7.50; **6393**: 6/$14.25*

A. thunbergii* 'Ostrich Plume'** Also called ***Straussenfeder. Rich coral-pink flowers have distinctive arching drooping habit. New foliage bronze-tinted. Late season. 30-40" tall.
***6401**: 1/$2.90; **6402**: 3/$7.50; **6403**: 6/$14.15*



***Cimicifuga ramosa* 'Atropurpurea' Bugbane** Even though I now have one struggling with drought and weeds, I still associate this cultivar with posh Bar Harbor gardens. Green tri-pinnate foliage with a purple cast, something like Astilbe's, forms a tall erect clump over which beautiful arching very purple stems tower. The whole astounding arrangement reaches 4-8' tall. My favorite time is when the stems are lined with purple-brown squat button-like buds slowly swelling for 3-4 weeks in August. Blooms in September with lushly fragrant creamy-white bottlebrush flowers which, as Michael Zuck said in *People Places & Plants* magazine, are both worth the long wait and give "such sweet comfort" to those of us who mourn summer's passing. Plant 2-3' apart in moist fertile humus-rich soil, partial shade. Don't confuse with medicinal Black Cohosh, *C. racemosa*, which we list in Medicinals Section, #**7081.** Z3.
***6411**: 1/$7.00; **6412**: 2/$12.00; **6413**: 3/$16.75*

***Convallaria majalis* Lily of the Valley** is a hardy bedding or border plant and an excellent ground cover, even for dry shade. Perennial favorite and a top-seller for all 16 years that we've listed it. Easy to grow under any conditions, prefers partial to full shade. Produces long stems of bell-shaped fragrant white flowers in late spring-early summer, followed by small orange berries. Their intense fragrance and delicate shape add welcome notes to spring bouquets. Plant pips 2" deep, 3-5" apart in rich moist soil. 6-8" tall. Z2.

***6421**: 5/$2.85; **6422**: 10/$4.85; **6423**: 25/$11.45*

***Delphinium* 'Pacific Giant' Mixed Delphinium** We are breaking a long tradition because we haven't been happy with the quality of the dwarf 'Magic Fountains' stock recently, and are going all-out and listing marvelous glamorous temperamental full-sized delphiniums. Pacific Giant is a hybrid series that includes some favorite cultivars like Summer Skies, Black Knight, Guinevere, King Arthur, Blue Jay—in other words delphiniums you have seen and instantly adored. Lush flower spikes bloom in midsummer, covered with small flowers whose outer petals and inner sepals often contrast in color. When plants are established, flower spikes can be over 6' tall and arise from a waist-high clump of pinnate glossy green foliage. The catch is that they demand *very rich moist* well-drained soil. I sidedress mine with compost in spring and fall and whenever I am foliar feeding anything in the garden I give the delphiniums several squirts. They also need staking (the trick is to stake *before* they fall down) because they are in their heavy-blooming glory right when we have our most intense windy summer thunder and hail storms. Plant 18-24" apart in highly fertile non-acid loam in full sun or light shade. Certified organic stock. Z3. ❄
***6431**: 1/$3.75; **6432**: 3/$9.80; **6433**: 6/$18.25*

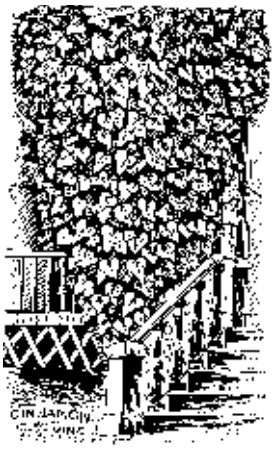
***Dicentra* Bleeding Heart** Graceful racemes arch above and beside clumps of attractive cut foliage. Distinctively shaped flowers dangle in a row on each raceme like charms on a bracelet. Hardy long-lived plant when it gets rich moist soil and partial shade. Z3.

***D. cucularia* Dutchman's Breeches** White yellow-tipped flowers look like so many tiny pantaloons hanging above very finely cut foliage. Blooms with the daffodils and makes a wonderful accent in an early spring garden. An ephemeral: whole plant dies down after flowering; tubers remain dormant until the following spring. Native eastern wildflower, rescued from sites about to be developed and nursery propagated. 8-12" tall.
***6441**: 1/$2.90; **6442**: 3/$7.50; **6443**: 6/$14.25*

***D. formosa* 'Luxuriant' Western Bleeding Heart** Blooms all summer and tolerates heat and drought better than any other *Dicentra*. Cherry red flowers defy the elements as they dangle above lush finely-cut light green foliage which is pretty as a fern's. Excellent border plant with spreading habit, 12-15" tall.
***6451**: 1/$4.20; **6452**: 2/$7.25; **6453**: 3/$10.35*

***D. spectabilis* Old-Fashioned Bleeding Heart** Pink heart-shaped flowers with white detail on this old garden favorite delight every spring. Blooms with late tulips and complements them well. Also useful for cutting. Prefers plenty of room to bush out. Foliage may die back in summer heat. Plant 2-4" deep, 24" apart. 30-36" tall. Our stock has 2-3 eyes. Z3.
***6461**: 1/$2.90; **6462**: 3/$7.50; **6463**: 6/$14.25*

***Digitalis* x *mertonensis* Strawberry Foxglove** Pendulous 2½" bell-shaped copper-tinged strawberry-rose flowers with spotted throats dangle along 3-4' spires June till August. Good for cutting or border. Basal rosette of big velvety leaves. Large true-breeding tetraploid hybrid needs dividing every 3 years. Plant 24-36" apart in moist slightly acid soil in full sun to partial shade. Z4.
***6471**: 1/$3.50; **6472**: 3/$9.00; **6473**: 6/$17.00*



***Dioscorea batatas* Cinnamon Vine** Vigorous grower with delicate spade-shaped shiny deep-green purple-edged leaves on a twining purple vine covered from mid- to late-summer with multiple racemes of cream-colored tiny pearls. These pearls, the blossoms, perfuse the air with a fresh sugary cinnamon perfume. The vine dies back every fall and comes on stronger each spring. Give it a trellis unless you want it everywhere. Some customers in warmer areas report excessively vigorous aggressive tendencies.

Cinnamon vine's edible roots, a staple food in northern China called *shao yan*, grow quite large in 3 or 4 years. Harvest in fall; they keep indefinitely in the fridge or root cellar. They are appetizing baked, with a finer texture and sweeter lighter taste than a potato, like a Jerusalem artichoke, but with a fluffier, less starchy consistency. Grow in full sun, light well-drained soil. Propagate by dividing roots as long as there is a growth "tail" coming off each division or by planting the "beads" that, lily-like, appear in the axils. Grown in Maine by Mark and Paula Fulford. Z3?-4. ❄

***6481**: 1/$3.50; **6482**: 3/$9.00; **6483**: 6/$17.00*

***Echinacea purpurea* 'White Swan' Coneflower** has bright 4-5" daisy-like blooms with graceful reflexed white petals that really do evoke swans, and large fascinating quilled copper-yellow centers undercolored with green. Great grouped in a border or on a slope. Long-lasting cutflower blooms from July to September and attracts butterflies. Likes full sun and sandy loam, and tolerates wind, heat and drought once established. 30-36" tall. Plant 20-30" apart in light soil. Also see Purple Coneflower, *E. purpurea*, **#7101** in the Medicinals Section. Z3.

***6491**: 1/$3.25; **6492**: 3/$8.50; **6493**: 6/$16.05*

Ferns One summer day long ago, I drove a friend from down south around Maine. "What magnificent beautiful ferns!" she kept exclaiming. Until that day, they were merely plants on the side of the road to me. Since then I've always noticed what lush roadside fern displays we enjoy in Maine several months of the year.

Ferns are flowerless spore-producing perennials represented by over 10,000 species worldwide, ranging from 70' tropical tree ferns to teeny plants sprouting from cracks in alpine rock. Several make wonderful low-maintenance foliage plants that thrive in moist woodsy humus-rich soil and lend a serene aura to a shady garden or landscape. Mulch if necessary to keep crowns from drying out.

Christmas Fern *Polystichum acrostichoides* remains evergreen in warmer zones, widely used for Christmas cut greenery. Shuttlecock of fronds with ladder-like parallel leathery dark green leaves is partially evergreen in our climate and provides good fall interest in the landscape and emerges in very early spring to combine well with woodland flowers. Moist acidic soil, light shade, tolerates sun with sufficient moisture. Plant 2-3' apart. 18-24" tall. Northeastern native. Z3.

***6501**: 1/$3.00; **6502**: 3/$7.00; **6503**: 6/$13.50*

Japanese Painted Fern *Athyrium niponicum* 'Pictum' is the most decorative fern I know; mine still thrills me. Soft grey-green background with purplish wine-red stems and markings accented by silver-grey highlights. Needs partial shade, moist soil. Deciduous. 8-18" tall with spreading habit. Plant 10-12" apart. Z3.

***6511**: 1/$4.60; **6512**: 2/$8.00; **6513**: 3/$11.40*

Lady Fern *Athyrium filix-femina* tolerates more sun and drier soil than most ferns. Spreads easily in moist soil from falling spores. Works as a foundation planting on the shady sides of my house. Graceful bright green fronds are twice compound with very numerous leaflets resulting in a fine-textured classic fern appearance. Many variant forms, a few taller than 4' but most are under 2'. Z3.

***6521**: 1/$3.00; **6522**: 3/$7.00; **6523**: 6/$13.50*

Maidenhair Fern *Adiantum pedatum* Delicate whorled form makes it one of my favorite ferns. Polished black stems curve up and then droop toward the ground with more narrow black stems growing in arches from them. Tiny distinct ginkgo-like green leaves line every stem. I think maidenhair fern is named after maidenhair tree but continue to seek definitive information on this topic. Plant 12" apart. Likes semi-shade or shade, moist soils. Native to eastern North America. Very hardy. Z2.

***6531**: 1/$3.50; **6532**: 3/$9.00; **6533**: 6/$16.50*

Ostrich Fern *Matteuccia struthiopteris* is a delicately textured bright green deciduous fern with a golden hue in the light. Frond tips curl like ostrich feathers. Likes open shade, woods and wet banks. Tolerates full sun in swampy areas. One of the largest hardy ferns, 3-7' tall, and spreads by underground runners, so give it room. Native to Europe, but well established and welcome in North America. Z2.

***6541**: 1/$3.50; **6542**: 3/$9.00; **6543**: 6/$16.50*

Royal Fern *Osmunda regalis* also attains giant proportions and, as one of the showiest garden ferns, makes a striking focal point on a waterside or in a woodland. Soft and wavy deciduous lance-shaped light green fronds can reach 3' long. One of the so-called Flowering Ferns, with cinnamon-colored fertile stalks. Slow-growing plant gets to be 6' tall and over 9' wide in humus-rich moist-to-wet soil. Evolutionarily speaking, *Osmunda* is one of the oldest plant genera, native to North and South America and Asia. Some Royal Fern individuals are said to be 1000 years old. Z3.

***6551**: 1/$3.50;*
***6552**: 3/$9.00;*
***6553**: 6/$16.75*

***Frageria vesca* 'Improved Rugen' Alpine Strawberry** Hardy plant for edging walkway, bed or border; has no runners and maintains compact habit. Familiar compound leaves and white flowers followed by rich red berries June till fall. Leaves considered blood purifying and diuretic in European folk tradition. Long-bearing strain of juicy sweet and tender berries. 6-10" tall. Plant 8-12" apart in slightly acid moist garden soil. Prefers full sun. Susceptible to root rot if too wet. Z3.

***6561**: 1/$3.85;*
***6562**: 3/$9.90;*
***6563**: 6/$17.50*

For regular strawberries, see #**2410-2442**.

***Geranium* Cranesbill**

Name confusion may be the reason why this attractive easy-to-grow genus is not more popular: the tender bedding and indoor plant with big red flowers often called geranium is actually *Pelargonium*. True geraniums have deeply cut leaves, clusters of single round cup-shaped to flat flowers and distinctive long narrow "cranesbill" seedpods which flutter jauntily above the spreading foliage. Longevity, hardiness, long flowering period and attractive foliage make them useful for borders, edging, ground cover or rock gardens. Foliage quickly forms dense clumps, and turns a rich red in fall. Tolerates partial shade, but flowers more in full sun. Plant 12-18" apart in average garden soil. Z4.

***G.* 'Johnson's Blue'** covered with 2" vivid bright blue flowers from late spring into early summer. Mat-like spreading foliage. 12-18" tall. ❄

***6571**: 1/$3.40; **6572**: 3/$8.70; **6573**: 6/$15.75*

***G. phaeum* 'Samobor' Dusky Cranesbill** Chocolate-brown variegations on deeply lobed green leaves, dusky purple single flowers in late spring. Cut down after flowering to promote a new flush of attractive foliage. Native to Croatia, said to be good in damp shade. I confess to falling for this cultivar after seeing its picture in catalogs.

***6581**: 1/$3.40; **6582**: 3/$8.70; **6583**: 6/$15.85*

***Helleborus orientalis* Hellebore** or **Lenten Rose** Last year I listed this mysterious and slightly sinister plant so I could buy one. It's holding steady in a new shade garden and I expect it will make a move in the spring. Hellebores, known for being evergreen in all but the coldest climates and blooming in winter or very early spring, were named by the ancient Greeks and are native to the chalky soils of Macedonia, Asia Minor and the Caucasus. Mentioned in English as early as 1400 as having poisonous and medicinal properties, specifically for mental disease. Looks like a small shrub, 15-18" tall, with leathery green leaves palmately divided into many lobed leaflets. Saucer-shaped flowers, 2-3" across, appear in very early spring, last up to eight weeks, and vary in color from white and greenish-white to pink. Likes dappled shade and neutral to alkaline soil with plenty of organic matter and good drainage, but *H. orientalis* is the easiest of the genus to grow and tolerates a wide range of conditions. Will self-sow when content. Does not like to be disturbed and is dormant in summer. *Caution: all parts of the plant are poisonous.* Z4, possibly Z3.

***6591**: 1/$5.50; **6592**: 2/$9.90;*
***6593**: 3/$13.50*

***Hemerocallis* Daylily** produces a bush of narrow arched leaves topped with lily-shaped flowers from July to September and is the champion low-maintenance perennial. *Hemerocallis* means *beautiful day*, *day* referring to the fact that each flower lasts only a day, but each scape is covered with buds so bloom periods can be extensive and the long stems work in bouquets. Very hardy, flourishes under a wide range of conditions, from full sun to shade, wet to dry. Trouble-free, chokes out weeds. For foundation planting, terrace, brookside, wild garden or border. Plant 12-18" apart in average soil; very rich soil may produce excessive foliage and few flowers. However, in my experience, daylilies, like almost everything else, benefit from a shovel or two of compost. Of the over 40,000 registered cultivars, approximately 13,000 are still in circulation, with hundreds of new ones added each year so deciding what to list is always a challenge. Z2.

***H. flava* Lemon Lily** or **Custard Lily** When you see the first daylilies of the season blooming by old houses, they're probably yellow and probably Lemon Lilies. Clear bright yellow star-shaped flowers. Old variety with a tart lemony scent. 24" tall. ❄

***6601**: 1/$3.20; **6602**: 3/$8.00;*
***6603**: 6/$14.50*

***H.* 'Catherine Woodbury'** Blushed light lilac-pink blends into soft yellow-green throat, free-blooming midseason diploid. Tall beautiful fragrant award-winner. Sales are beginning to dwindle—maybe everybody has one?—but I can't bear to drop this gorgeous cultivar. 30-50" tall.

***6611**: 1/$3.40; **6612**: 3/$8.70;*
***6613**: 6/$15.75*

***H.* 'Frans Hals'** Eye-catching bicolor has three creamy yellow-orange petals alternating with three petals that are ruffled and dark red, almost bright rust, with a thin cantaloupe stripe down the middle. Many star-shaped flowers on each scape. Great way to blend "regular" daylilies into a color scheme with reds. 24-36" tall. This year's stock grown without chemical fertilizers, pesticides or herbicides. ❄

***6621**: 1/$3.20; **6622**: 3/$8.00; **6623**: 6/$14.50*

❄ = grown by a member of the Fedco growers coop

***H.* Renzo's Lily** Bennett Steward's brother Renzo bought a house in Colorado where he salvaged this daylily from the remains of an old garden. Bennett has grown it out and it is large, dramatic and well worth saving. Clumps about 3' tall and flower scapes at least 4 1/2'. 4" Flowers burnished orange shading to dark red with yellow throats are double in the most literal sense: a second miniature flower sits inside the 4-5" outer flower. I had never seen doubling of that sort and I find it fascinating. Many flowers per scape start blooming in late July here. We've tentatively identified it as a Kwanso Double, one of a series known for indestructibility bred by hybridizer A.B. Stout at the NY Botanical Gardens in the 1940s. We're excited to be bringing it back. Order early, supplies limited. ❄

***6631**: 1/$6.30; **6632**: 2/$11.00; **6633**: 3/$15.20*

***H.* 'Ruffled Apricot'** Huge 7" fragrant glowing apricot flowers have lightly ruffled substantial petals, lavender-pink midribs and golden throats. Award-winning tetraploid is a vigorous grower. Midseason. 26-30" tall.

***6641**: 1/$3.65; **6642**: 3/$9.50; **6643**: 6/$17.25*

***H.* 'Stella de Oro'** Golden yellow with delightful compact habit. Perhaps the longest bloomer: from late June till late August with ample moisture and fertility. Small 2-3" triangular-to-round flowers, fragrant award-winner. Began as a fad but has become a classic. 12-18" tall. ❄

***6651**: 1/$3.20; **6652**: 3/$8.00; **6653**: 6/$14.40*

***Hosta* Plantain Lily** or **Funkia** has bold foliage in orderly mounds with dependable sprays of fragrant bell-shaped flowers on tall stalks. Valuable and beloved low-maintenance border plant and ground cover spring to frost. A friend described them as "so architectural!" Several gardeners my age have remarked to me, while admiring a fine planting of Hostas, "I didn't used to like them, but now I see how great they are." With their varying clump sizes, leaf colors and textures, hostas under trees make a fine woodland garden. This year's selection reflects my predilection for large cultivars. Hostas tolerate a wide range of soil conditions, but need moisture. Their blue and variegated leaves develop best color in shade. Deep shade gives fewer flowers. Plant 2-4' apart in rich soil with adequate humus. Divide every 4-5 years, or disturb clumps as little as possible; they improve with age as they spread and establish. Z3.

***H.* 'Guacamole'** This sport of 'Fragrant Bouquet' has caused a lot of excitement recently in the hosta world, and is the 2002 American Hosta Growers Hosta of the Year. Pale lavender flowers are large and fragrant, but the leaves are what everyone is excited about. Very substantial and large, rounded with irregular dark green edging and deep vein color, their centers are the yellow-green of avocado slices. Colors intensify in light and with age. Rapid grower with good sun tolerance. Clumps are 22-24" tall, scapes to 36".

***6661**: 1/$8.10; **6662**: 2/$14.00; **6663**: 3/$20.00*

***H. sieboldiana* 'Elegans'** sets the standard for big blue Hostas. Glaucous heart-shaped rounded grey-green leaves can be a foot wide. They have wonderful thickness, heavily textured and puckered. Additionally valuable because it tolerates dry shade. White flowers. 24-36" tall clump.

***6671**: 1/$3.40; **6672**: 3/$8.70; **6673**: 6/$15.75*

***H. s.* 'Frances Williams'** Outstanding cultivar often called the best hosta. Leaf interiors rich blue-green with a wide variable golden-yellow edge. Clumps up to 40" high. White flowers on shortish slightly pendant stalks harmonize with the foliage rather than stand above it.

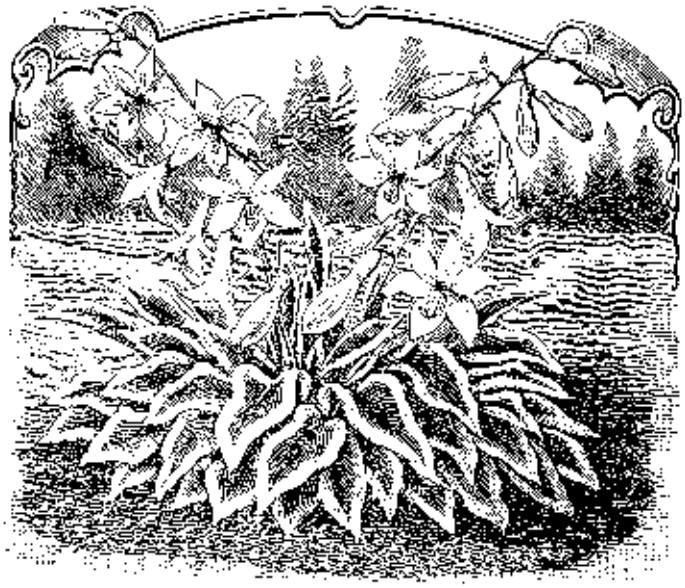
***6681**: 1/$3.40; **6682**: 3/$8.70; **6683**: 6/$15.85*

***H.* 'Sum and Substance'** Huge rounded chartreuse-green very thick seersuckered leaves become more golden in sunlight. Popular award winner has very pale lilac flowers on leaning scapes. Said to have good slug resistance. Clumps become very large: to 36" tall and 60" across.

***6691**: 1/$3.50; **6692**: 3/$9.00; **6693**: 6/$16.50*

***H. undulata* 'Albo Marginata'** Old favorite has green leaves with large wavy white edge, late lavender blooms. Two-for-one sale. 12-18" tall.

***6701**: 2/$3.00; **6702**: 6/$7.75; **6703**: 12/$14.50*



***Iris ensata* Japanese Iris Mix** Immense flat blooms in late June and July hover above graceful clumps of arching narrow leaves. Petals are wider than those of any other iris and float mysteriously on a horizontal plane. Wonderful in the border, around ponds or streams. Requires ample moisture during active growth and flowering, not so much moisture other times. Somewhat tricky to grow. Often takes 2 years to establish, then is best left undisturbed. Plant 6-8" apart in slightly acid soil, in full sun or partial shade. Mix includes white and shades of blue, lavender and violet. 36" tall. Z4.

***6711**: 1/$3.70; **6712**: 3/$9.50; **6713**: 6/$17.75*

***Iris sibirica* Siberian Iris** produces delicate flowers on thin stems good for cutting. Blooms in late June. Group in border or naturalize in colonies to show off tall slender foliage that looks good all summer. Tolerates most conditions, but performs best in rich moist acid soil. Plant 12-15" apart in full sun or partial shade. Give them room to spread, and divide clumps every few years. Z3.

***I. s.* 'Caesar's Brother'** is rich deep blue. Worth listing season after season because it is outstanding in so many ways: vigor, hardiness, depth of color, number of blossoms, graceful foliage habit. 42" tall. Maine-grown without chemical fertilizers, pesticides or herbicides. ❄

***6721**: 1/$3.25; **6722**: 3/$8.50; **6723**: 6/$16.15*

***I. s.* 'White Swirl'** has big blooms of softly ruffled white petals with light yellow throats. Often mentioned as the best white. 30-36" tall.

***6731**: 1/$3.25; **6732**: 3/$8.50; **6733**: 6/$16.25*

***Lavandula angustifolia* Lavender 'Munstead'** blooms in spires of lavender-blue 15-18" tall flowers treasured for their scent. Valued for dried arrangements, potpourri, herb bundles; nice border, rockery, slope, edging or specimen plant. Aroma soothes the nervous system and perfumes the linen closet. Blooms all summer. Aromatic grey-green lanceolate foliage, bushy habit. Prune woody stems in spring. Likes full sun; demands good drainage. Plant 12-18" apart. Certified-organically grown once again by Blessed Maine Herb Co. Z4. ❄

***6741**: 1/$4.50; **6742**: 2/$8.00; **6743**: 3/$11.40*

***Liatris spicata* Blazing Star** or **Gayfeather** grows stiff dense "bottlebrush" spikes of magenta-purple flowers, from July to September, which open from the top down. Flowers are good for cutting; leave 1/3 of stem on plant. The foliage is fine and grass-like. Hardy, tolerates a broad range of growing conditions, but not drought. 20-30" tall. Plant 3" deep, 8-12" apart, in well-drained fertile soil. Z3.

***6751**: 10/$2.60; **6752**: 20/$4.50; **6753**: 50/$10.00*

***Lilium* Lilies** The queen of the perennial border, fabulously showy and surprisingly easy to grow. Breeders have been working on them for thousands of years and continue to develop new species and scores of new cultivars every year. It's a confusing terrain, but briefly: **Asiatic** types bloom early, are a bit smaller (under 4'), than Orientals and often have their star-shaped blossoms facing upward. **Oriental** strains tend to be taller (may need staking), bloom later, with their very fragrant and flamboyant blossoms slightly pendant on tiny stems off the main stem. **Trumpets** have long trumpet-shaped blooms, resemble so-called Easter Lilies, are tall and late.

Based on last year's good response, we are offering more low-priced small bulbs, and the species martagon lily once again. Excellent as bedding plants or cutflowers, good as specimens or in solid masses, lilies prefer light shade to prolong summer blooms and to keep the bulbs cool. Mulch in full sun. Plant bulbs 6-8" deep, 6" apart in rich well-drained soil, slightly acid with good humus content. Z3.

***L.* 'Gran Cru'** Asiatic, 38" Yellow with blushed mahogany centers. Bargain prices on 1¾" bulbs.

***6761**: 2/$2.30; **6762**: 6/$6.00; **6763**: 12/$11.40*

***L.* 'Monte Negro'** Asiatic, 42" Stir a dab of dark chocolate into fire engine red and you've got the intense deep color of 'Monte Negro'. Early: the first lily to bloom in my garden. Bargain prices on 1¾" bulbs.

***6771**: 2/$2.30; **6772**: 6/$6.00; **6773**: 12/$11.00*

***L.* 'Sorbet'** Asiatic, 32-40" Brushed tips and interior dots of burgundy-pink on white petals. Bargain prices on 1¾" bulbs.

***6781**: 2/$1.75; **6782**: 6/$4.50; **6783**: 12/$8.55*

***L.* 'Aubade'** Oriental, 32-36" Fragrant. White with wide yellow-gold band on each petal. Inconspicuous anthers. 2-2¼" bulbs.

***6791**: 1/$1.70; **6792**: 3/$4.00; **6793**: 6/$7.70*

***L.* 'Casa Blanca'** Oriental, 40-44" (but I've seen them blooming from 3-8'). Pure white with textured white specks, and bobbing russet anthers. Nikos saw 'Casa Blanca' in bloom on a trials visit one summer and grabbed my arm; "It's absolutely gorgeous!" They *are* gorgeous and their fragrance fills the garden. 2¼-2½" bulbs.

***6801**: 1/$2.10; **6802**: 3/$5.50; **6803**: 6/$10.75*

***L.* 'Stargazer'** Oriental, 24-30" Deep rose with white edge, spotted. Fragrant flowers are huge when plants become well established. Continues to be wildly and deservedly popular. Great prices on 1¾" bulbs.

***6811**: 2/$1.75; **6812**: 6/$4.50; **6813**: 12/$8.55*

***L.* 'Tom Pouce'** Oriental, 24-30" Pink with yellow stripe and dots. Fragrant. Bargain prices on 1¾" bulbs.

***6821**: 2/$2.30; **6822**: 6/$6.00; **6823**: 12/$11.35*

***L.* 'Regale'** Trumpet, 40" and taller. White interior with yellow throat, bronzy-pink exterior. Graceful 5-6" long flowers have somewhat recurved petals. Fragrant and late-season. Very strong bloomer. 2½" bulbs.

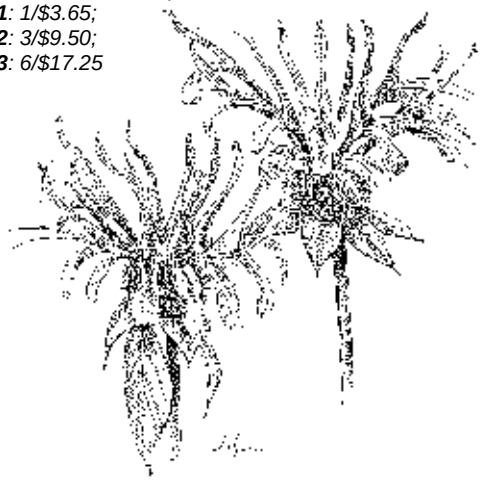
***6831**: 1/$2.50; **6832**: 3/$6.50; **6833**: 6/$12.25*

***L. martagon* Martagon** or **Turkscap Lily** True species lily, not widely available, will seed itself and multiply gradually when it is well situated. Long stems covered with up to 40 pendant pinkish-purple flowers with darker flecks on their extremely recurved petals (the Turks' caps) in a lengthy midseason display. Good for naturalizing or the middle of a big border. Said to have an unpleasant fragrance but will not drive you out of the garden. Easy to grow in well-drained soil in full to partial sun. 4-6' tall. 1¼" bulbs.

***6841**: 1/$5.75; **6842**: 2/$10.00; **6843**: 3/$14.25*

***Monarda didyma* 'Jacob Cline' Bee Balm** or **Oswego Tea** is loved by bees, butterflies and hummingbirds. 'Jacob Cline' is a recent variety selected for its flowers, vigor and mildew resistance and has been quickly embraced in the nursery trade as "the best red." Very large 5" showy red flower heads with tubular petals in pincushion clusters are borne above colorful bracts in July and August. Coarse aromatic foliage. Good for borders, naturalized in wet areas and for cutting. A vigorous member of the mint family—some might say invasive. Plant crowns 16-20" apart in light shade in moist soil. Thrives in full sun if given adequate moisture or mulched with leaf mold; tolerates most conditions. 48" tall. Z3.

***6851**: 1/$3.65;*
***6852**: 3/$9.50;*
***6853**: 6/$17.25*



***Pæonia lactiflora* Garden Peony** or **Chinese Peony** Red shoots appear in spring and form a bushy clump, about 3x3', of lustrous dark green deeply lobed foliage. Fat spherical buds on sturdy stems above the foliage gradually open into large beautiful double flowers in late spring to early summer. (Ants help the buds to open so don't discourage their presence.) Mature plants often need staking or tying because flowers and buds can be quite heavy. Huge flowers are stunning on the bush and wonderful when cut. If you catch the buds when they are just marshmallow soft, they can be stored for weeks in the fridge for flowers later. Cut dead foliage to near ground level in fall. Plant along the driveway; a heavy snowbank doesn't bother them.

Plant 2-3' apart with the eyes (where the growth shoots meet the root) no more than 1-1½" below the surface in well-drained soil, full sun to partial shade. Peonies are extremely long-lived so it's best to prepare a hole with rich soil, and soil amendents including very well-rotted manure. Once you've done that, they are easy to care for, needing only a bit of weeding to flourish. May take up to 3 years to establish before blooming and resent being disturbed. Wait several years, until the plants have many stems, before attempting to divide. Stock has 2-3 eyes. Z3.

***P. l.* 'Kansas'** Vivid crimson red fully double blooms on very strong stems do not fade in sun. Has set the standard for double reds since its introduction more than half a century ago. Early to midseason. 36" tall.

***6861**: 1/$5.50; **6862**: 2/$9.50; **6863**: 3/$13.50*

***P. l.* 'Shirley Temple'** Fully double light rose-pink flowers fade to creamy-white. Fragrant. Early; one of the first peonies to bloom.

***6871**: 1/$8.50; **6872**: 2/$14.50; **6873**: 3/$19.50*

***P. l.* 'Sorbet'** This "bomb-type" variety was more popular last year than expected so demand outstripped supplies. We're trying again. Magenta-pink outer petals enclose creamy-yellow finely cut inner petals out of which explode more pink petals. The effect is triple-decker and completely over-the-top. Midseason. 28-30" tall.

***6881**: 1/$9.00; **6882**: 2/$16.00; **6883**: 3/$21.60*

***P. officinalis* 'Rosea Plena'** Double Pink **Common Peony** Silvery-pink and fully double with satiny ruffled petals, flowers about 5" wide. Very similar to the Garden Peony in appearance and culture. The only differences that I can determine are that flowers are not fragrant, the undersides of the leaves are slightly hairy and the bush is slightly shorter. *P. lactiflora* is native to northern China and Siberia and *P. officinalis* to southern Europe. *Officinalis* indicates that a species was once part of the official pharmacopoeia. We're still wondering whether Europeans used peony roots medicinally before they learned to do so from the Chinese. Apparently both species have similar medicinal properties. Early season. Z3.

***6891**: 1/$5.50; **6892**: 2/$9.50; **6893**: 3/$13.60*

***Pæonia suffruticosa* Japanese Tree Peony** or **Moutan** is expensive, but as garden writer Peter Coats says, "It is worthwhile to sell everything one possesses to buy pæonies, and to dig up everything else in the garden to make room for them." A fashion craze in China by the 7th century, tree peonies appear in poets' songs and as decorative motifs in architecture and fabric. 19th century botanical explorer Robert Fortune reported a specimen outside Shanghai that produced 300-400 flowers a year.

Deciduous shrub with deeply cut narrow-lobed medium green foliage forms many (though probably fewer than 300 in its first century) large stunning flowers in early June, before Garden Peony. Semi-double extravagantly big flowers with loose satiny petals. Full sun promotes fastest growth but fades flowers which do best in dappled shade; fanatics shade plants with umbrellas while they are flowering. Tolerates moist soils but requires good drainage. Plant in rich soil with graft union 2-3" below soil level. Don't prune except for dead wood in the spring after leafing out. 48-60" tall. Carefully graded 1-yr. plants imported from Japan may need 2-3 years to mature before blooming begins. Z4.

***P. s.* 'Hanakisoi' Tree Peony** apricot pink with soft pink edge. *Hana* is Japanese for flower, and *Hanakisoi* seems to mean competition-grade flower!

***6901**: 1/$19.00; **6902**: 2/$35.00; **6903**: 3/$48.00*

***P. s.* White Tree Peony**

***6911**: 1/$15.50; **6912**: 2/$27.00; **6913**: 3/$36.75*

***P. s.* Yellow Tree Peony**

***6921**: 1/$15.50; **6922**: 2/$27.00; **6923**: 3/$36.75*

***Perovskia atriplicifolia* Russian Sage** blossoms in midsummer with slender airy spires of lavender-blue tubular flowers. Finely divided grey leaves are aromatic when crushed. 1995 PPA Plant of the Year. Low-maintenance background or filler great with roses or whites and blues. Perovskia has one of the longest bloom times of any blue-flowered plant. Upright habit, semi-woody shrub, emerges slowly in spring; cut back after frost. Tolerates drought, loves heat and can't bear standing water. 3-4' tall. Likes to spread out once it gets established; plant 24-36" apart. Well-drained soil and full sun. I suspect that Zone 4 reports of winterkill are from poor drainage rather than cold, so a cautious Z4.

***6931**: 1/$3.50; **6932**: 3/$9.00; **6933**: 6/$17.00*

***Phlox paniculata* Garden Phlox** produces large spreading clusters of fragrant showy long-blooming flowers in mid to late summer when so many blooms are fading, and produces whites, pinks and lavenders when so many blooms are yellow or orange. Wonderful color and fragrance for accents, border or naturalized area. Attracts butterflies and hummingbirds. Extend flowering season by watering and prompt deadheading. Prefers humus-rich soil that stays cool and moist in summer and regular sidedressing. Plant 2' apart in full sun to partial shade. Z3.

***P.* 'Bright Eyes'** Each individual flower is delicate shell-pink with a vibrant neon-pink eye. Large 4-5" flower clusters light up a bed on overcast days. Very fragrant, too. Plants around 36" tall have a tidy comparatively compact habit. Deep red bronzy wine-colored foliage on their new growth and buds makes the plants decorative from mid-June onward. ❄

***6941**: 1/$3.40; **6942**: 3/$8.70; **6943**: 6/$16.00*

***P.* 'David'** White flowers cover the plant so completely with enormous (6x7") and fragrant blooms that it was voted the PPA Plant of the Year for 2002. 30-42" tall.

***6951**: 1/$3.40; **6952**: 3/$8.70; **6953**: 6/$15.80*

***P.* 'Starfire'** Reliable old favorite widely considered the best red. Large (6x6") abundant cherry-red flower clusters are fragrant from midsummer into fall. 25-36".

***6961**: 1/$3.25; **6962**: 3/$8.50; **6963**: 6/$15.50*

Polygonatum biflorum **Solomon's Seal** forms clumps of graceful arching stems about 3' long with long narrow alternate leaves. Greenish-white bell-shaped tubular flowers dangle from the stems in a row in late spring, and become small round blue-black fruits in early fall. Shade- and moisture-loving, with a serene habit, Solomon's Seal is ideal for the shade or woodland garden and makes a good foil for ferns. Don't confuse it with False Solomon's Seal which has a plume-like flower at the *end* of its stem. Native Americans used the root tea for ailments of stomach and lung and for general debility, and used washes from the root for all kinds of external injuries. I am not aware of local herbalists using this native plant nowadays. Sends up a few more stems every year; sturdy and long-lived. Native eastern wild plant, rescued from wild sites about to be developed and nursery propagated. Z3.

6971*: 1/$2.90;* ***6972****: 3/$7.50;* ***6973****: 6/$14.00*

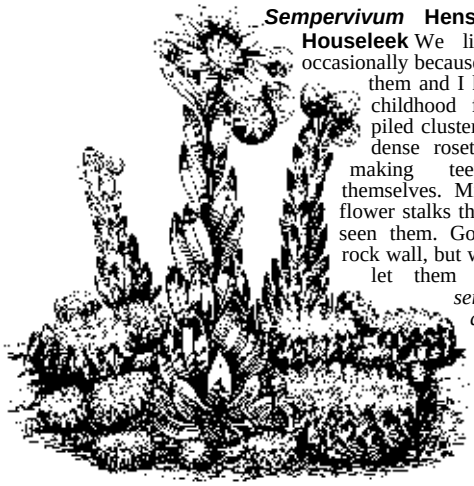
Sedum **Stonecrop** demands drought and likes poor soil. Popular and hardy succulents require little maintenance and provide interesting textures and other-wordly flowers to add interest to beds, borders and rockeries. Their performance in hot dry places where nothing else thrives doubles their value. Excellent as a dried flowers, in a vase or brightening the garden. Plant 8-12" apart in full sun, any soil with good drainage. Z3.

S. **'Autumn Joy'** Also known as **Herbstfreude**. Light green fleshy leaves thrive in sun or light shade. Big flat-topped clusters of star-shaped deep pink flowers in August fade through pinkish-bronze to copper-red on reddish stalks for early fall color. 15-20" tall.

6981*: 1/$3.25;* ***6982****: 3/$8.50;* ***6983****: 6/$16.15*

S. telephium **'Rosy Glow'** Dusky light-green leaves have a purplish cast and spread under wide mauve bud clusters that open to bright purply-pink flowers on purple-pink stems. Leaves and flowers alike have an exotic soothing grey undertone. I put mine near a *Rosa rubrifolia*, now called *R. glauca*, where it has survived much drought and neglect and continues to delight me with its glaucous hues. Blooms in late summer. 8" tall.

6991*: 1/$3.50;* ***6992****: 3/$9.00;* ***6993****: 6/$17.00*



Sempervivum **Hens and Chicks** or **Houseleek** We list Hens and Chicks occasionally because my grandmother grew them and I haven't gotten over my childhood fascination with these piled clusters of little succulents in dense rosettes that propagate by making teensy duplicates of themselves. Mine sent up tall crazy flower stalks this year, first I had ever seen them. Good in rock garden or rock wall, but will grow anywhere you let them except soggy spots: *sempervivum* means *always alive*. This year we're offering a mix of varieties including reds, greens, purples and 'Cobweb'. Z3.

7001*: 1/$3.65;*
7002*: 3/$9.50;*
7003*: 6/$17.25*

Thalictrum rochebrunianium **'Lavender Mist' Meadow Rue** Seeing All Weather Farm's thalictrum crop in 2000 endures as an outstanding garden-tour memory. The row of 6-9' tall plants in bloom did indeed make a lavender mist, aptly described as looking like a wall in a fairy kingdom. In early spring columbine-shaped blue-tinted foliage emerges from the ground, sending up a bud which adds a segment of stems and leaves, which, in turn, sends up another segment, building height throughout the season. Stems are stunning lavender-purple. Finally a segment contains flower buds which open in late July in an airy puff of tiny single flowers in loose panicles. Each flower is light lavender with an acid-yellow center. Good for cutting if you can reach that high. Beautiful in borders, edges of woods or ponds. Plant 2-3' apart. Moist humus-rich soil, sun to part shade. This year we have a limited supply of stout field-grown divisions which should be more vigorous than the seedlings we have offered in recent years. Maine-grown without chemical fertilizers, pesticides or herbicides. Z4. ❄

7011*: 1/$3.75;* ***7012****: 3/$9.80;* ***7013****: 6/$18.25*

Tiarella cordifolia **Foam Flower** or **False Mitrewort** Native wildflower nicknamed for its foamy profusion of blossoms. Dense upright finger-shaped racemes 12" tall are covered with countless teensy creamy-white blossoms in spring. Foliage, heart-shaped, lobed and toothed, resembles maple leaves and becomes bronze red in autumn. Likes cool shaded spots, spreads by stolons. Easy to grow. Plant 6-12" apart in a woodland garden. Nursery-propagated stock salvaged from wild plant sites that were about to be destroyed. Z3.

7021*: 1/$2.90;* ***7022****: 3/$7.50;* ***7023****: 6/$14.25*

Veronica spicata **Speedwell** Easy to grow in well-drained soil, sun or partial shade. Multiple erect flower spikes, each thickly covered with tiny tubular blossoms decorate the border or rock garden, and are good for cutting. Some members of the genus are spreading prostrate forms, but our clump-forming offerings stand up and behave themselves and have narrow glossy deep green toothed leaves in addition to profuse flowers. Plant 10-15" apart in sun or part shade, ordinary well-drained soil. Z3.

V. s. **'Red Fox'** Flower spikes are a pink so deep that it borders on red, variously described as deep pink and rosy-red. **Rotfuchs** in German. Glossy foliage is compact, 12" tall.

7031*: 1/$3.50;* ***7032****: 3/$9.00;* ***7033****: 6/$17.00*

V. s. **'Sunny Border Blue'** is sometimes described as the best veronica. 1993 PPA Perennial of the Year. Gentian-blue flowers from early summer into autumn. 18-20" tall. Grown without synthetic fertilizers, pesticides or herbicides at Entwood Farm & Nursery. If we run out of Maine stock, we will substitute commercially raised plants. ❄

7041*: 1/$3.70;* ***7042****: 3/$9.50;* ***7043****: 6/$17.75*

Perennial Medicinal Plants

Growing medicinal plants in your own garden gives you the opportunity to come to know their personalities, forms, uses and spirits. It also helps to prevent wild plants from being overharvested. Medicine you make from your plants returns you to your garden, regardless of the time or the place that you use it.

Many of the other plants we list have a tradition of medicinal use as well. These include Cinnamon Vine, Alpine Strawberry, Lavender, Bee Balm, Peony, Wormwood, Rose, Elder, Hops, Ginkgo, Linden, Hawthorne, Witch Hazel, Blueberry, Cranberry and Highbush Cranberry. (Index on p. 43.)

Like most perennials, these appreciate a fall mulch and a sidedressing of compost or leaf mold in the spring. Some may take a year or more to establish before they flower; roots often take several years to reach harvestable maturity. The certified organic listings are grown by Gail Edwards of the Blessed Maine Herb Company in Athens, ME. Supplies may be limited, so order early.

Althaea officinalis **Marshmallow** I've been attracted to Marshmallow ever since I watched charismatic herbalist Deb Soule rub its soft velvety leaf against her cheek to explain that it's good in tea mixtures when you want to add mothering. Coarse but ornamental plant grows 5-8' tall with big toothed leaves 4-6" across. Small light lavender flowers with dark purple-lavender stamens appear up and down the stalks. All parts of the plant are mucilagenous and soothing. Flowers and leaves suitable for teas and balms. Roots soothe any irritated membrane: good for urinary tract infections, sore throats, congestion. Plant 1-2' apart in light moist soil, full sun. Certified-organically grown. Z4. ❄

7051*: 1/$4.50;* ***7052****: 2/$8.40;* ***7053****: 3/$11.50*

Asarum canadense **Canadian Wild Ginger** Heart-shaped leaves up to 7" wide will spread into a beautiful groundcover 6-12" tall if given humus, shade and plenty of moisture. Leaves are large and slightly fuzzy, not small and glossy like the European species. Aromatic roots used like other gingers for their warming qualities and for soothing indigestion, coughs, colds, motion sickness. Grown for roots and foliage. The small reddish-brown urn-shaped flowers grow near the soil surface or in the leaf mold so crawling insects will pollinate them. They're fun to search for but won't decorate your landscape. Plants rescued from wild sites before development and nursery propagated. Z3.

7061*: 1/$2.90;* ***7062****: 3/$7.50;* ***7063****: 6/$14.25*

***Astragalus membranaceus* Chinese Milk Vetch** Deep-rooted leguminous plant bears rows of whitish-yellow flowers on arching racemes. Forms an upright vigorous bush with many stems each thickly covered with tiny pinnate leaves and small racemes. Although I wouldn't call mine beautiful, it has so many small planes tilted in so many directions that it catches the eye in a wonderful way. I'll need several more plants before I can part with one for harvest.

Important Chinese medicinal, *huang qi*; when used over many months provides long-term rebuilding of the immune system while helping combat exhaustion. Sometimes combined with Codonopsis in immune-building tonics. Improves digestion. Prefers deep sandy, gravelly well-drained soil and full sun. 18-36". Harvest 4- to 6-year-old roots in fall. Certified organic. Z4. ❄

***7071**: 1/$5.25; **7072**: 2/$9.00; **7073**: 3/$13.00*

***Cimicifuga racemosa* Black Cohosh** or **Black Snakeroot** flourishes in the wilder part of the garden or shady border. In late July and August, long arching racemes of creamy flowers rise above the mound of compound foliage, hence another common name: **Fairy Candles**. Anti-spasmodic for cramps, pains, cramped nerves and emotions, included in many peri-menopausal formulas. Also diuretic and anti-inflammatory. Easy-to-grow long-lived plant needs division or harvest every 4-5 years. Good in boggy spots. 36-72" tall. Plant 30-36" apart in rich moist soil high in humus. Prefers part shade, but tolerates full sun in deep moist soil. See also #**6411**, *C. ramosa* 'Atropurpurea', a dazzling ornamental. Z3.

***7081**: 1/$4.25; **7082**: 2/$7.50; **7083**: 3/$10.50*

***Codonopsis pilosula* Poor Man's Ginseng** would be fun to grow as a novel ornamental even apart from its medicinal properties. Tendrilly twining vines are about 4' long in their second year and have small ovate leaves. Mature vine about 6' long. Buds look like green peas, swell to little green balloons and flower as green bells with purple veining, then mature to five-sided-balloon seed pods.

Considerably easier to grow than true Ginseng. Energizing, adaptogenic, supports the deep immune system. Called *dang shen* in China. Harvest 4- to 6-year-old roots. Sun to part shade, good drainage. 2-year-old plants are Certified organic. Z4. ❄

***7091**: 1/$5.25; **7092**: 2/$9.00; **7093**: 3/$13.00*

***Echinacea purpurea* Purple Coneflower** Some year we may offer a named ornamental strain of Echinacea, but Gail Edwards' organically grown medicinal strain is also stunningly beautiful and strikes me as more valuable than a merely ornamental cultivar, even if you use it only for ornament. *Echinos* means spiny and the flower's big conical centers are very spiny and coppery yellow-brown, surrounded by a single row of slightly reflexed lavender-purple petals. Flowers attract butterflies and beneficial insects, and last well when cut. Their color combination marries pinks, oranges and golds that wouldn't ordinarily go together in beds or bouquets. Tincture the roots of 3-year-old plants for a remedy that gives an immediate boost to the immune system. That's why people use it when they feel a cold or flu coming on. Vigorous grower likes full sun and sandy loam, and tolerates wind, heat and drought once established. 30-48" tall. Plant 20-30" apart in light soil. Certified organic. See **#6491**, for 'White Swan', an ornamental Echinacea Z3. ❄

***7101**: 1/$5.25; **7102**: 2/$9.00; **7103**: 3/$13.00*

***Glycyrrhiza uralensis* Chinese Licorice** is valued as a medicine, a sweetener and a flavor. Soothes stomaches, sore throats, mucous membranes; balances energy and hormones. Good for menopausal women, but people with hypertension and diabetes should avoid. *Gan cao* in China. Gail Edwards recommends sucking on slices of fresh or dried roots, which can be harvested from the second year onward and are astoundingly sweet. Good for making herbal concoctions palatable. Leguminous plant has compound oval leaves. Grows to 1-5' tall. Prefers part shade and moisture. Plant 8-12" apart. Once established, roots spread out vigorously. One-year-old certified organic plants. Z5. ❄

***7111**: 1/$5.25; **7112**: 2/$9.00; **7113**: 3/$13.00*

***Hydrastis canadensis* Goldenseal** We're delighted again to offer Paula and Mark Fulford's crop of two-year-old rootlets of this healing plant which native Americans taught Europeans how to use. Has astringent and powerfully tonic qualities for all mucous membranes so used in cold formulas and for other respiratory complaints, as well as for inflammations of the digestive tract. Paula tinctures the yellow root or uses it dried and powdered, and claims the leaves have weak medicinal properties as well. Plants have upright stalks, typically forked into two stems, each with a deeply incised dark green leaf with 5-9 lobes and toothed edges. A white flower appears above the foliage in spring and matures to a red berry. 6-12" tall. Likes rich woodland soil; culture is similar to ginseng's but goldenseal is easier to grow. Use plenty of compost and leaf mold for very humus-rich well-drained soil. Grow in almost total shade and prevent any competition. Harvest root after the seeds ripen in fall. Z3. ❄

***7121**: 1/$7.25; **7122**: 2/$12.25; **7123**: 3/$17.50*

***Hyssopus officinalis* Hyssop** Seeing Gail's big bed of hyssop in bloom last August reminded me what an ornamental plant it is. Wonderful and aromatic for low hedge, herb garden or border. Bees love its blue-violet flowers on erect stalks which blossom June to September. Infusions long used for sore throats and stomach troubles, flower spikes in cough syrups. Thrives in dry soil, useful on slopes and any sunny difficult place. 12-16" tall. Plant 12-24" apart in poor soil, full sun to light shade. Certified organic. Z3. ❄

***7131**: 1/$4.50; **7132**: 2/$8.40; **7133**: 3/$11.50*

***Lavandula* Lavender** See #**6741**.

***Symphytum officinale* Comfrey** or **Knitbone** is well-known for its soothing properties. Contains allantoin, promotes healing of skin and bone; also demulcent for lung and throat. Hanging bell-like pink flowers much loved by bumblebees open in early summer. Stem and leaves covered with bristly hairs. Easy-to-grow vigorous plant demands space; *can be very invasive*; be careful where you plant it; control with regular harvest. When a stand is established, you can make several cuttings per season of leaves to add to the compost pile. 24-48" tall. Plant 16-24" apart in average well-drained soil, sun or shade. Grown without synthetic fertilizers, pesticides or herbicides. Z3. ❄

***7141**: 1/$2.90; **7142**: 3/$7.50; **7143**: 6/$13.75*

***Valeriana officinalis* Valerian** is a strong and upright plant with small white or rosy flowers in flat clusters above pinnate leaves. We see it blooming by the roadsides in early summer, especially around the midcoast. I'm told that European valerians were brought to Camden gardens and escaped and have been spreading ever since. Well-known anti-spasmodic, nervine and sedative is sold as an over-the-counter tranquilizer. Divide or harvest thick rootstock with its unmistakable smell every 4-5 years. Easy to grow, good in border or herb garden. 2-4' tall. Plant 12-15" apart in moist well-drained soil in full sun. Certified organic. Z3. ❄

***7151**: 1/$4.50; **7152**: 2/$8.40; **7153**: 3/$11.50*

***Viola* spp. Common Blue Violet** I thought everyone had violets, but your inquiries show otherwise. Violet-colored flowers bloom in early spring, are sweetly scented and delicious to eat. Heart-shaped leaves can be 3" across and grow in basal clumps. Leaves and flowers, used in tinctures, oils and syrups, are sources of Vitamins C and A, antioxidant, anti-inflammatory, and nourishing for throat, lungs and reproductive organs, and are important ingredients in my spring wild salads. Gail calls the violet a "powerful magical healing herb."

Wild species abound and we aren't positive which Gail's are, probably *V. papilionacea* which botanists classify under *V. sororia*. Fortunately, the *Viola* species are interchangeable in their medicinal use. I was interested to learn that you can pick every flower and still have seeds because of a peculiarity of the genus. They have showy but seedless (chasmogamous) flowers in spring, later forming (cleistogamous) self-pollinating petal-less flowers that mature into a seed capsule very close to the ground. Vigorous self-sowing can be a nuisance. Good ground cover for shade. Likes rich moist well-drained soil and part shade. 4-8" tall. Certified organic. Z4. ❄

***7161**: 1/$4.50; **7162**: 2/$8.40; **7163**: 3/$11.50*

Plants to attract wildlife

#	page	Name	Common Name
3230	19	*Thuja occidentalis*	**Arborvitae**
1900ff	14	*Vaccinium sp*	**Blueberry**
4270	25	*Cephalanthus occidentalis*	**Buttonbush**
3405	20	*Castanea mollissima*	**Chinese Chestnut**
3650	21	*Aesculus hippocastanum*	**Horse Chestnut**
2640	17	*Cornus mas*	**Cornelian Cherry**
4600	28	*Prunus pumila var. depressa*	**Ground Sand Cherry**
2725	18	*P. tomentosa*	**Nanking Cherry**
4240ff	25	*Aronia sp*	**Chokeberry**
4039ff	24	*Malus spp.*	**Crabapple**
2885	18	*Viburnum trilobum*	**Highbush Cranberry**
3920	23	*Cornus alternifolia*	**Pagoda Dogwood**
4277ff	26	*Cornus sp*	**Dogwood**
2760ff	18	*Sambucus canadensis*	**Elderberry**
2910	19	*Abies balsamea*	**Balsam Fir**
3952	23	*Crateagus viridis*	**Winter King Hawthorn**
3427	20	*Corylus sp*	**Hazelnut**
4450ff	27	*Lonicera sp*	**Honeysuckle**
2570	17	*Amelanchier alnifolia*	**Juneberry**
3850	22	*Tilia americana*	**Linden**
3625ff	20	*Acer sp*	**Maple**
4207	23	*Sorbus decora*	**Mountain Ash**
4950	31	*Viburnum lentago*	**Nannyberry**
3791ff	21	*Quercus sp*	**Oak**
3170ff	19	*Pinus sp*	**Pine**
2707ff	18	*Prunus sp*	**Wild Plum**
4650ff	28	*Rosa spp*	**Roses**
3040ff	19	*Picea sp*	**Spruce**
4273	25	*Clethra alnifolia*	**Summersweet**
4260	25	*Campsis radicans*	**Trumpet Vine**
4943	31	*Vib. lant.* x *V. rhytidophyllum*	**Viburnum**
3455ff	20	*Juglans sp*	**Walnut**
4740	31	*Salix purpurea*	**Blue Leaf Willow**
4398ff	27	*Ilex verticillata*	**Winterberry**
3970	23	*Hamamelis virginiana*	**Witch Hazel**

Plants that like shade

#	page	Name	Common Name
3230	19	*Thuja occidentalis*	**Arborvitae**
2910	19	*Abies balsamea*	**Balsam Fir**
4270	25	*Cephalanthus occidentalis*	**Buttonbush**
4240ff	25	*Aronia sp*	**Chokeberry**
2640	17	*Cornus mas*	**Cornelian Cherry**
2885	18	*Viburnum trilobum*	**Highbush Cranberry**
6461ff	35	*Athyrium, Adiantum, Matteucia...*	**Ferns**
7021	40	*Tiarella cordifolia*	**Foamflower**
4358	26	*Fothergilla major*	**Large Fothergilla**
6591	36	*Helleborus orientalis*	**Hellebore**
4450	27	*Lonicera x brownii*	**Honeysuckle**
4375	27	*Hydrangea arborescens*	**Annabelle Hydrangea**
6611ff	37	*Hosta*	**Hostas**
2570	17	*Amelanchier alnifolia*	**Juneberry**
6381	34	*Convallaria majalis*	**Lily of the Valley**
3907	23	*Cercis canadensis*	**Redbud**
6971	40	*Polygonatum biflorum*	**Solomon's Seal**
4273	25	*Clethra alnifolia*	**Summersweet**
7161	41	*Viola sp*	**Violet**
3970	23	*Hamamelis viginiana*	**Witch Hazel**

Plants for dry spots

#	page	Name	Common Name
3920	22	*Robinia pseudoacacia*	**Black Locust**
1900	14	*Vaccinium angustifolium*	**Lowbush Blueberry**
4600	28	*Prunus pumila* var. *depressa*	**Ground Sand Cherry**
4240ff	25	*Aronia sp*	**Chokeberry**
2910	19	*Abies balsamea*	**Balsam Fir**
3952	23	*Crateagus viridis*	**Hawthorn**
3427	20	*Corylus sp*	**Hazelnut**
2570	17	*Amelanchier alnifolia*	**Juneberry**
6741	37	*Lavendula angustifolia*	**Lavender**
4790ff	30	*Syringa vulgaris*	**Lilac**
3791	21	*Quercus melanocarpa*	**Bur Oak**
3797	21	*Quercus rubra*	**Red Oak**
3170	19	*Pinus resinosa*	**Red Pine**
2707ff	18	*Prunus sp*	**Wild Plum**
4574ff	28	*Potentilla fruticosa*	**Potentilla**
4650ff	28	*Rosa rugosa*	**Rosa rugosa**
6911	39	*Perovskia atriplicifolia*	**Russian Sage**
6981ff	40	*Sedum*	**Sedum**
4285	26	*Cotinus coggygria*	**'Royal Purple' Smokebush**
4274	25	*Comptonia peregrina*	**Sweetfern**
4530	27	*Philadelphus cornonarius*	**Sweet Mockorange**
4212	23	*Syringa reticulata*	**Tree Lilac**
6331ff	33	*Artemisia*, spp.	**Wormwood**
6231	33	*Achillea* spp.	**Yarrow**

Plants that form hedges

#	page	Name	Common Name
3230	19	*Thuja occidentalis*	**Arborvitae**
2910	19	*Abies balsamea*	**Balsam Fir**
4320	26	*Euonymus alatus*	**Burning Bush**
2725	18	*Prunus tomentosa*	**Nanking Cherry**
2885	18	*Viburnum trilobum*	**Highbush Cranberry**
4240ff	25	*Aronia sp*	**Chokeberry**
4277	26	*Cornus amomum*	**Silky Dogwood**
2760ff	18	*Sambucus canadensis*	**Elderberry**
4332	26	*Forsythia*	**Forsythia**
3952	23	*Crataegus viridis*	**Hawthorn**
3427	20	*Corylus sp*	**Hazelnut**
2570	17	*Amelanchier alnifolia*	**Juneberry**
4790ff	30	*Syringa vulgaris*	**Lilac**
4950	31	*Viburnum lentago*	**Nannyberry**
3170ff	19	*Pinus sp*	**Pine**
2707ff	18	*Prunus sp*	**Wild Plum**
4574ff	28	*Potentilla fruticosa*	**Potentilla**
4650ff	28	*Rosa rugosa*	**Rosa rugosa**
3040ff	19	*Picea sp*	**Spruce**
4273	25	*Clethra alnifolia*	**Summersweet**
4530	27	*Philadelphus cornonarius*	**Sweet Mockorange**
4943ff	31	*Viburnum sp*	**Viburnum**
4398ff	27	*Ilex verticillata*	**Winterberry**

Plants for wet spots

#	page	Name	Common Name
3230	19	*Thuja occidentalis*	**Arborvitae**
3720	21	*Fraxinus nigra*	**Brown Ash**
1920ff	14	*Vaccinium sp*	**Blueberry**
6851	38	*Monarda didyama*	**Bee Balm**
4270	25	*Cephalanthus occidentalis*	**Buttonbush**
4240	25	*Aronia arbutifolia*	**Red Chokeberry**
4240ff	25	*Aronia sp*	**Chokeberry**
7081	41	*Cimicifuga racemosa*	**Black Cohosh**
2496	17	*Vaccinium macrocarpon*	**American Cranberry**
2885	18	*Viburnum trilobum*	**Highbush Cranberry**
4277ff	26	*Cornus sp*	**Dogwood**
2760ff	18	*Sambucus canadensis*	**Elderberry**
6461ff	35	*Athyrium, Adiantum, Matteucia...*	**Ferns**
4358	26	*Fothergilla major*	**Large Fothergilla**
3910	23	*Chionanthus virginicus*	**Fringetree**
6711ff	37	*Iris sp*	**Iris**
2570	17	*Amelanchier alnifolia*	**Juneberry**
3625	20	*Acer rubrum*	**Red Maple**
4950	31	*Viburnum lentago*	**Nannyberry**
4574ff	28	*Potentilla fruticosa*	**Potentilla**
4273	25	*Clethra alnifolia*	**Summersweet**
4274	25	*Comptonia peregrina*	**Sweetfern**
4959	31	*Viburnum opulus*	**Snowball Viburnum**
3832ff	22	*Salix spp.*	**Willows**
4740	31	*Salix purpurea*	**Blue Leaf Willow**
4398ff	27	*Ilex verticillata*	**Winterberry**
3970	23	*Hamamelis viginiana*	**Witch Hazel**

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- Jack-in-the-Pulpit
- Violet

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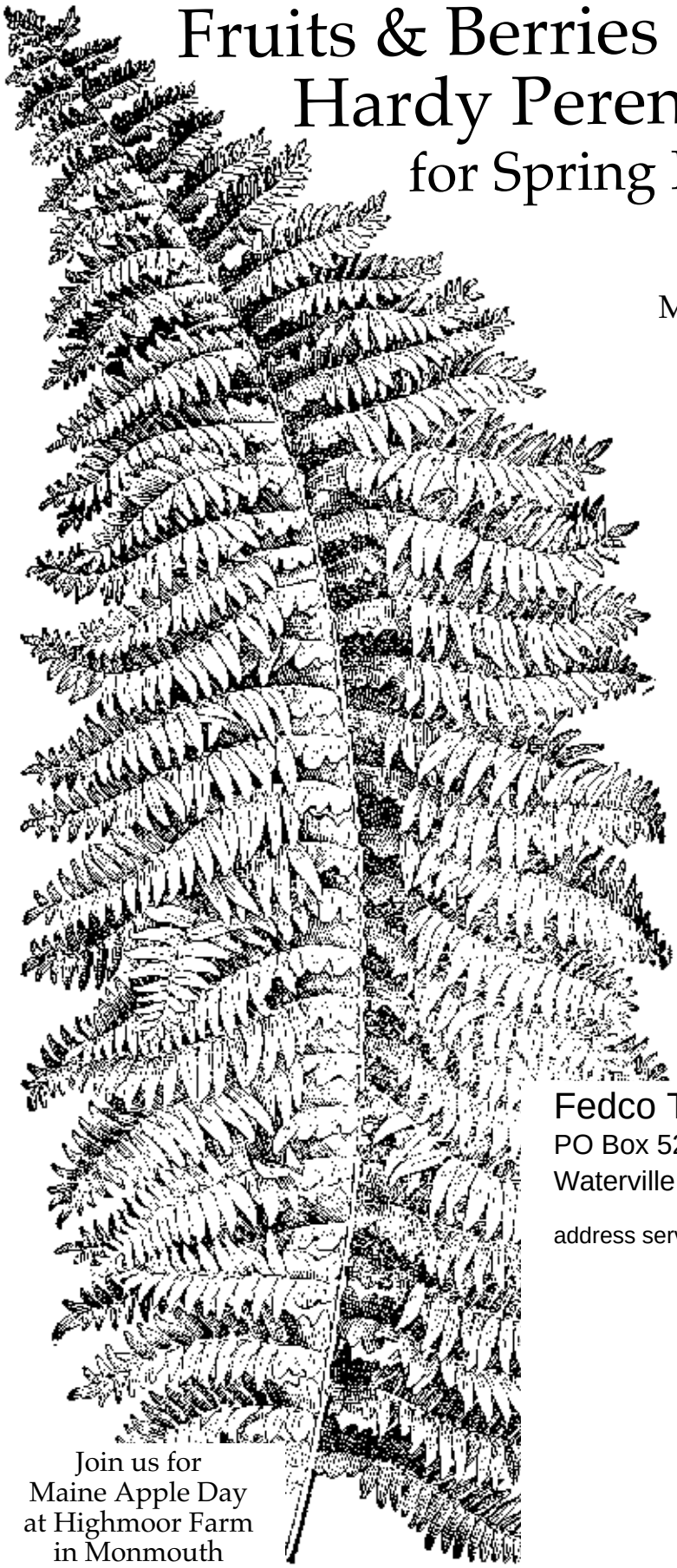

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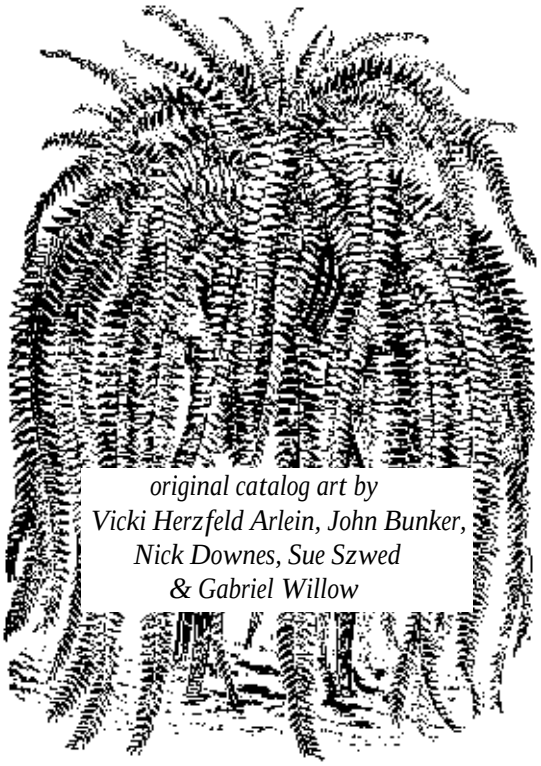

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